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W.O. CODE NO. 9624

26/GS Trg Publications/2470

Infantry Training

Volume IV

TACTICS

THE INFANTRY PLATOON IN BATTLE

1960

(PROVISIONAL)

This pamphlet supersedes Infantry Training Volume IV—Tactics—Infantry Section Leading and Platoon Tactics, 1950 (Code No. 8593) and Military Training Pamphlet No. 16, Fighting in built up Areas, 1943 (W.O. Code No. 7665)

Prepared under the direction of
The Chief of the Imperial General Staff.

THE WAR OFFICE,
March 1960

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AMENDMENTS

Amendment Number	By whom amended	Date of insertion

DISTRIBUTION

(See catalogue of War Office Publications, Part II)

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RAC (Regular and TA) .. .. Scale C
RA, RE, R Sigs, RAOC, REME, RASC (Regular and TA) Scale A

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INTRODUCTORY NOTE

This pamphlet is based upon the present war establishment of an infantry battalion (II/804/6 (P) (Regt)). This establishment is likely to be superseded in the near future and the organization may undergo some changes. Nevertheless it has been decided not to withhold publication on these grounds as it would cause considerable delay, and the pamphlet is badly needed. The pamphlet caters for both conventional and nuclear war.

INFANTRY TRAINING

VOLUME IV—TACTICS

THE INFANTRY PLATOON IN BATTLE

CHAPTER I

INTRODUCTION

". . . The four best commands in the Service—a platoon, a battalion, a division and an Army. A platoon because it is your first command, because you are young and because, if you are any good, you know the men in it better than their mothers do and love them as much".—

Field Marshal Sir William Slim.

SECTION 1.—AIM

1. The aim of this manual is to teach the junior officer what he must know to train an infantry platoon and command it in battle.

2. The manual is also intended to help NCOs in two ways:

(*a*) By teaching them how to handle a section in battle.

(*b*) By giving them a grounding to prepare them for command of a platoon.

SECTION 2.—TRAINING

Role of the infantry

3. The primary role of the infantry is to close with the enemy and kill him.

Types of war

4. Broadly speaking, there are three types of war for which our Army must train. They are:—

(*a*) Total war.

(*b*) Limited war which in future may involve the use of nuclear weapons.

(*c*) Internal security operations.

Need for planning

5. The time available for training is always too short; the platoon commander will rarely have time to do all he wants to do. He must therefore plan all his training with care to make the best use of the time available. The first essential in all planning is a clear aim. Before he begins to plan any training, the platoon commander must be quite clear about his aim in his own mind.

6. Instructors are often young and inexperienced. They have a hard and responsible task and will look to their platoon commander for help and guidance. He must always see that they get it.

SECTION 3.—TACTICS

7. Minor tactics is the application of weapons and formations to ground. Every platoon and section commander must master:—

(*a*) Weapon handling.

(*b*) Fire control.

(*c*) Fieldcraft and appreciation of ground.

(*d*) Selection and construction of fire positions.

(*e*) Concealment and the use and construction of cover.

8. Once a battalion has been committed to battle, success or failure depends almost entirely on the initiative of the junior leaders and the efficiency with which they handle their commands.

9. Junior leaders must always be trying to improve their military knowledge. They must also use their common sense, as tactics are essentially common sense. To help them master tactics, junior leaders should remember these three constant factors:—

(*a*) Have a clear aim.

(*b*) Try to achieve surprise.

(*c*) Make a simple plan.

CHAPTER II

MAN MANAGEMENT

"All the commanders and theoreticians of military affairs in the past also assigned great importance to the morale factor".—Marshal of the Soviet Union K. E. Voroshilov.

SECTION 4.—MORALE

General

10. Field Marshal Montgomery has stressed the supreme importance of morale in war. Morale is founded on discipline, leadership and self-respect. It is the degree of confidence in the mind of a soldier when he identifies himself with a group, accepts its aims and works hard to achieve them. In a platoon, therefore, a soldier's morale means how he feels about himself, his job and the rest of his platoon. If he feels that he is accepted as a member of the platoon, that he is a useful member of it and has a worthwhile job which he does well, the chances are that he will be a happy and enthusiastic soldier. If all the members of a platoon feel like this and are well trained and well led, they will pull together as an efficient team. Each and every man will be determined to avoid letting down either his own friends or the reputation of his platoon, company or battalion. His morale will be high.

Discipline

11. Discipline helps the soldier to overcome fear and fatigue. It is founded on self-respect, self control and a sense of duty. It enables a soldier to carry out orders without regard to his own safety in the interests of the other members of his platoon. It calls for a high standard of leadership. Good discipline results as much from cheerful co-operation as from plain obedience. If morale is high, many a man will impose a much more exacting discipline on himself than anyone else can impose on him.

Leadership

12. Leadership amounts to winning the confidence and co-operation of men to such an extent that they will readily and cheerfully undertake any task given to them. Men expect their leaders to set a good example in every way, to be efficient, just and genuinely interested in their personal welfare. Junior leaders will not gain the confidence of their men unless and until they measure up to these standards.

SECTION 5.—CARE OF MEN

13. The first responsibility of all commanders is the care of their men. A junior leader must begin by getting to know the men in his platoon. They will have different personalities, backgrounds and aptitudes. Platoon and section commanders must learn what these individual characteristics are if they are to handle their men to the best advantage of the sub-unit as a whole.

14. A sense of comradeship between all ranks should be encouraged. Men should not be transferred between sub-units without good reason; should this prove necessary, the reasons should be explained. When reinforcements arrive, friends should be posted to the same section whenever this is possible.

15. As far as the essential needs of security allow, men should always be kept informed of the latest situation. They will work better for knowing what they are doing and why they are doing it.

16. The platoon commander must continually look after his men's interests and welfare. He should see that they are as comfortable and as well cared for as the situation allows and that their duties are fairly divided. Some men have a knack of dodging duties whereas others undertake cheerfully any task given to them. He must always be ready to listen to complaints and to remedy the cause if they prove justifiable. If men have problems, he should help them if he can or, failing that, seek his company commander's help.

17. The platoon commander will find it helpful to keep an up-to-date roll of his men in a pocket book. Details which should be included are:—

(*a*) Number, rank and name.
(*b*) Religion.
(*c*) Blood group.
(*d*) Radiation dosage.
(*e*) Name, address and relationship of next-of-kin; details of family.
(*f*) Date of birth.
(*g*) Specialist training.
(*h*) Weapon number.

The platoon commander should study each man's personal documents kept in the company office. This study, coupled with his personal contact with the men will soon familiarise him with their service and family background, trade and individual interests.

18. The Medical Officer is the Commanding Officer's adviser on medical matters and the medical expert in the battalion. The care of fit men, however, is the responsibility of the platoon commander, advised by the medical officer. The commander must always watch for signs of illness or strain in his men. He must insist on the highest possible standard of personal cleanliness. He must see that men have the facilities to attend regularly to the calls of nature. Men must shave and clean their teeth daily and bath as often as circumstances allow. If water is available, it is easy to improvise a shower with a biscuit tin hung from a branch or beam but drainage should not be forgotten. When salt tablets and paludrine are issued, they must be taken under supervision.

Sanitation

19. Men must be made to understand that dirt gives rise to disease and they must be taught the importance of sanitation. Faeces should be covered with earth as soon as possible by any method appropriate at the time. Shallow trench latrines will most often be used; deep trench latrines will rarely be prepared in platoon localities except in static conditions. If an earth auger can be obtained, it is the most efficient tool for digging a latrine. A wooden box superstructure with a fly-proof lid over the bore-hole will be satisfactory. The platoon urinals should not be sited too far from the men's positions otherwise there will be a temptation not to use them. Latrines must be filled in before the position is left. Filled-in latrine sites must be marked "*Foul*".

Refuse

20. If neglected, refuse will accumulate in a platoon position in a remarkable way and it may betray the position to the enemy. It is bad for morale and it attracts rats and disease-bearing insects. The platoon commander must therefore insist on regular disposal of refuse. Waste food, empty tins, cigarette packets and other litter must be buried.

Care of the feet

21. Infantry depend on their feet and they must keep them in good shape. They should be washed daily whenever water is available. Daily dusting with foot powder will help to prevent foot rot. Socks must be kept clean and neatly darned. Boots must fit comfortably and be kept in good repair. The platoon commander should hold routine foot inspections to satisfy himself on these matters.

Clothing and blankets

22. Clothing and necessaries should be inspected regularly to ensure that they are kept serviceable and clean. Blankets

should be shaken and aired as often as possible. Whenever the opportunity presents, they should be exchanged for clean ones. Dusting bedding with anti-lice powder will destroy lice and fleas.

Water

23. All drinking water will be boiled or sterilized with the tablets issued for the purpose unless it has been passed as pure by the Medical Officer. When water is in short supply, as is often the case in war, strict water discipline must be imposed and men will not drink without the platoon commander's permission.

24. The Handbook of Army Health provides a guide to the regimental officer on the health of his men and should be read.

SECTION 6.—ADMINISTRATION

Care of arms

25. Arms and ammunition are the most important tools of the platoon's trade and all ranks must cherish them, in and out of battle. Weapons and ammunition should be inspected daily. Out of battle, magazines will be unloaded to rest the springs.

Rations

26. Fresh rations may be issued in a rest area and sometimes farther forward. Composite rations or tinned equivalent supplemented with fresh items may be issued anywhere in the theatre and will be the normal issue in the forward area. For special operations, troops may be issued with 24-hour pack rations.

27. There is no doubt that when conditions allow, troops prefer company cooking but the type of ration issued and where it is cooked depends on the tactical situation, the main factors being:—

(*a*) The distance between the company area, A and B echelon.

(*b*) Whether cover for a company cookhouse is available behind the company position.

(*c*) Restrictions on movement of men or vehicles by day or night.

(*d*) The need for companies to be self supporting.

(*e*) Special operations which may necessitate an issue of 24-hour pack rations to the individuals involved.

28. When food is sent forward to the platoon position in containers, they should be handled carefully as they are easily damaged by rough usage and the contents may be spilt. Food left in containers soon becomes unappetizing. Cooking may

sometimes have to be done at platoon or section level. Section equipment may be used or cooking may be with improvised equipment providing this does not give off smoke which may cause enemy reaction. Individual cookers are issued only for special operations.

29. There are three methods of feeding in a company locality:—

(*a*) All troops less sentries feed together behind the company area.

(*b*) Each platoon filters back, half at a time, to feed behind the company area.

(*c*) Food is distributed to section positions in containers; this is the least appetizing method.

30. The usual procedure after contact is:—

(*a*) Hot breakfast before first light.

(*b*) Haversack rations during the day.

(*c*) Hot main meal after last light.

(*d*) Tea in containers during the night.

Routine

31. Whether in or out of battle a platoon commander should keep to a definite routine in order to:—

(*a*) Keep his men in good health.

(*b*) Maintain a high standard of training and improve the platoon's positions as much as possible. This also helps to prevent boredom, especially during quiet periods in defence.

(*c*) Ensure that no administrative details are overlooked.

32. LMGs in the FDLs must be inspected one at a time and never altogether. This ensures that some are always ready for immediate action. Platoon routine should not only cover matters like shaving, meals and inspections, but should be designed to ensure that men are doing something useful when they are not actually resting. The platoon commander should aim to maintain a state of normality to which the men are fully accustomed. It greatly helps a young soldier to measure up to the strange conditions of battle and to overcome his fear when, in the midst of it all, he sees that routine matters have still to be attended to and that the standards of discipline required are just as high, if not higher.

Administration on the march

33. Every infantryman must be able to march a long distance and fight efficiently at the end of it. To do this, he must be physically fit and his feet, especially, must be hard and well

cared for. On his routine inspection the platoon commander should check:—

(*a*) Socks:—to see that they are the right size and free from holes and lumpy darns, both of which cause blisters.

(*b*) Boots:—to see that they fit comfortably, are supple and in good repair. New boots should be broken in by periods of wear for some time before a long march.

(*c*) Feet:—to see that they are clean and hard and that toe nails are kept cut.

34. Before a march, the platoon commander should inspect his men and ensure that:—

(*a*) Equipment is in order and fits correctly.

(*b*) Water bottles are full.

(*c*) Loads are fairly distributed.

35. On the line of march:—

(*a*) Men should keep in step. A steady, even pace must be maintained. Doubling to regain lost distance should be avoided.

(*b*) Men must be correctly covered off in their ranks if marching in threes or at the correct distances in single file.

(*c*) If the situation allows, a halt should be made for ten minutes in every hour. At these halts, troops should fall out on the side of the road on which they are marching and take such cover as the ground affords. All ranks, except those detailed as sentries, should loosen their equipment and lie down.

(*d*) If water is scarce men should be told that small quantities drunk frequently are better than infrequent copious drinks. They should be allowed to drink as they wish but should be made aware of the next refilling time.

(*e*) Cigarette smoking must not be permitted on the line of march but may be allowed at halts during the day. At night, all smoking may be forbidden, depending on the possible proximity of the enemy and the cover available.

36. After a march:—

(*a*) If possible, all men must wash their feet, after which a foot inspection should be held. If there is a water shortage, a damp towel is better than nothing. Blistered feet must receive immediate attention.

(*b*) Socks and boots should be inspected. Socks should be changed to the opposite feet if fresh ones are not available.

Casualties

37. First field dressings will always be carried by all ranks. Every man should have a knowledge of first aid. He should be able to stem the flow of blood from a wound and know how to give morphia. The use of tourniquets or splints or treatment for shock may save a man's life.

38. The usual method of marking a wounded man is to stick his rifle into the ground by the bayonet. This system makes the stretcher bearers' task easier and lessens the risk of tanks running over the wounded man. In defence, the company usually sets up a small first aid post manned by the RAMC corporal. Stretcher bearers are allocated to companies. They collect wounded men and take them back to the company aid post and sometimes on to the Regimental Aid Post (RAP). Walking wounded should, if possible, make their way to the centre line then back to the RAP.

Burial of the dead

39. Dead should be marked by sticking the rifle into the ground by the bayonet and putting the steel helmet on top of the rifle butt. Stretcher bearers should remove the dead from the platoon area as soon as possible; they may need help from the platoon. If stretcher bearers are not available, men from the platoon must be detailed to carry out the task. The platoon commander's duties regarding the personal kit of dead soldiers will be laid down in his battalion's Standing Orders for Operations.

40. Usually, burials are conducted by the chaplain assisted by men of the RAP. If, for operational reasons, a platoon cannot evacuate its dead and the chaplain cannot reach it, the platoon commander may have to conduct the abbreviated funeral service himself. It is important that all graves are marked with temporary crosses and that details of the position and grid reference are registered. Enemy dead will be registered and buried with the customary respect.

Casualty returns

41. A daily return of battle casualties is sent to company HQ giving numbers only of killed, wounded and missing. Details are sent to company HQ later. All battle casualties will be recorded in a notebook kept for the purpose. Details which must be recorded are:—

(*a*) Number, rank and name.

(*b*) When and where the casualty occurred.

(*c*) Whether the man was killed, severely wounded, received minor wounds or is missing.

The recording of other details such as witnesses and the nature of wounds must depend on the situation and the time the platoon commander has available.

42. The platoon commander should usually write to the next-of-kin of a man who is killed, severely wounded or missing. Battalion Standing Orders will probably lay down the procedure. If not, the platoon commander must ask his company commander for it and also check how the letter should be addressed. This is important because the letter should not arrive before the official notification of the casualty although it is most desirable that it should arrive as soon as possible afterwards.

SECTION 7.—ADMINISTRATION UNDER NUCLEAR CONDITIONS

General

43. Under nuclear conditions, sections will live under cover or in their APCs for some periods. Platoons and sections will on occasions be very widely dispersed; platoon HQ may be one or two miles from company HQ with sections as much as half a mile away. This wide dispersion raises a number of administrative problems. The replenishment of ammunition, petrol, water and supplies may be so difficult that troops may sometimes have to live off the country. Transport for re-supply will be limited and all movement will be strictly controlled. Forward platoons, in particular, will often have to live an isolated, self-contained existence.

44. On a long approach drive, troops will sometimes have to live, eat and sleep in their APCs. Halts will be necessary but troops can only be allowed out in the open for a short time. A complete section should not be exposed at the same time. APCs must be loaded with care. They must be kept clean and tidy although lived in for long periods by the troops.

Morale

45. Isolated sections under nuclear attack will undergo severe strain. This may be prolonged for days on end. The effort required of platoon and section commanders to overcome it will be great. Realistic training and a thorough knowledge of their duties will help to prepare them for their ordeal.

Rations

46. In the forward areas, it will often not be possible to move by day, either for feeding or any other reason. Platoon HQ and sections may have to be self-contained for cooking and feeding for periods up to a week. Section commanders must therefore be taught how to make tinned food attractive and

appetizing, how to provide a varied menu and how to ration food and water carefully. All men in the section must be taught how to cook so that the burden does not always fall on a few willing men.

Latrines and refuse pits

47. Proper latrines and refuse pits must be dug whenever possible. During mobile operations tins will have to be used. If men stop where no latrine or refuse pits exist, they must take a shovel with them to bury all refuse and waste matter.

Casualties

48. If neither a stretcher jeep nor an APC is available and if helicopter evacuation is not possible, casualties may have to remain in the platoon area for some time. Every man must be taught how to give morphia and first aid for burns and radiation sickness.

Rest

49. The foregoing paragraphs relate to the most severe conditions in which all sections of the platoon must remain in positions day and night. It may prove possible to withdraw up to two thirds of the platoon during the day to a platoon rest area. Even so, however, everyone will have to remain under cover with little freedom of movement. At night each section may be as much as half a mile from its nearest neighbour and it is then that the strain will be felt most.

CHAPTER III

ORGANIZATION

"It is well however not to be hidebound by ideas and conceptions which have become outdated by concrete facts. Our aim must be to maintain a constant degree of evolution in matters of organization, armament and tactics—and if we act on this principle we shall be able to both challenge and utilize the new techniques".

Lt-General C. A. Ehrensvärd, Swedish Army.

SECTION 8.—THE INFANTRY BATTALION

50. Every man in the platoon must understand how the infantry battalion is organized and know what help the battalion support weapons can provide. The infantry battalion on war establishment consists of a battalion HQ, HQ company and four rifle companies.

Battalion HQ

51. Battalion HQ is made up of:—

(*a*) A command element which includes the Commanding Officer, second-in-command and adjutant.

(*b*) The Intelligence Section which is responsible for gathering information.

(*c*) The medical detachment under the Medical Officer. This includes NCOs of the RAMC and the battalion stretcher-bearers.

HQ Company

52. HQ Company provides the battalion's administrative backing, internal communications and support weapons. Its sub-units are:—

(*a*) *The administrative platoon* which has two sections, the MT section under the MTO and the Quartermaster's section which includes the tradesmen.

(*b*) *The signal platoon* which has two sections, a signal office and line section and a wireless section. This platoon provides the wireless sets in the battalion but only operates the battalion net from battalion HQ to companies and support platoons. It trains operators for the rifle platoons. When the tactical situation allows, the platoon lays telephone lines within the battalion area. It also handles message traffic in and out of the battalion down to company level.

(*c*) *The mortar platoon* which has six 3-inch mortars. This weapon fires high explosive or smoke bombs. The bomb weighs 10 lbs. The minimum range of the mortar is 550 yards and the maximum is 3,100 yards. The bomb has a high trajectory so it is particularly suitable for firing at targets in dead ground which cannot be reached by other weapons. Mortars are under the direct control of the Battalion Commander and are his principal means of fire support. Mobile fire controllers (MFCs) can go with a rifle company in the attack to call for mortar fire on opportunity targets. In defence, mortar observation posts (OPs) may be located in company areas.

(*d*) *The medium machine gun (MMG) platoon* which has six MMGs. These provide the framework of the small arms fire defence of the battalion area. The gun can fire with accuracy up to a range of 2,800 yards and therefore beyond the effective range of enemy rifles and light machine guns (LMGs). It is belt fed and water-cooled and therefore capable

of sustained fire. If certain preparations have been made in daylight, accurate fire can be ensured in darkness, mist or smoke. The beaten zone is 300 yards long by 5 yards wide at 1,000 yards range. The most effective fire is therefore obtained when it is delivered obliquely or in enfilade. Direct fire is the usual and most effective way of engaging a target but the MMG is also capable of indirect fire, that is at targets not visible from the gun position. Overhead fire may be safely employed as the MMG is mounted on a firm tripod.

(*e*) *The anti-tank platoon* which has six 120-mm battalion anti-tank guns (MOBATs). The MOBATS form the major part of the battalion's own defence against enemy tanks. The best fighting range for the MOBAT is between 500 and 700 yards. The maximum effective opening range is about 900 yards owing to range-finding limitations.

(*f*) *The assault pioneer platoon* is a small platoon of pioneers under a sergeant. Because of its size, it cannot undertake more than one task at a time and large tasks are beyond its capacity. The kind of tasks it can tackle are:—

(i) Neutralizing and lifting all types of mines, reconnaissance of minefields before breaching, limited mine clearance of roads, tracks and built-up areas and operating Viper equipment.

(ii) Demolitions, mouseholing, tree-felling, cratering, destruction of wire obstacles and simulation of battle noises.

(iii) Watermanship and light rafting.

(iv) Knots and lashings.

(v) Supervising unskilled men in such tasks as rafting with infantry equipment, arming and laying mines, improving buildings for defence, wiring and construction of field defences.

The rifle company

53. The rifle company on war establishment consists of a company HQ and four platoons.

SECTION 9.—THE RIFLE PLATOON

Organization

54. A platoon consists of platoon HQ and three sections:—

(*a*) *Platoon HQ.*

Platoon commander (subaltern).
Platoon sergeant.

Batman/wireless operator.
Runner.
Anti-tank weapon team.
Light mortar team.

(*b*) *Each section.*

Section commander (corporal).
Rifle group.
LMG group.

Strength

55. The nominal strength of the infantry battalion and its various sub-units is governed by the authorized establishment. In battle, however, the actual strength will vary according to the casualty rate and the flow of reinforcements.

56. If there have been heavy casualties, it may be necessary to amalgamate or otherwise reorganize some sub-units. The minimum numerical strength below which platoons and sections cannot operate efficiently is:—

(*a*) For the section, one NCO and five men. Below this figure, the rifle group falls excessively short of bayonet power in the assault and a proper system of double sentries at night becomes unworkable as the men do not get enough rest.

(*b*) For the platoon, nineteen organized in two sections of six and a third section comprising the platoon commander, sergeant, batman/operator, two riflemen and an LMG group of two.

However, the acceptable strength of platoons is a matter for the Commanding Officer who may well order amalgamations when the fighting strength falls below twenty-five. Every effort should be made to keep the strength of rifle platoons up to this figure.

Equipment

57. The equipment and arms carried by members of the rifle platoon will vary according to the type of operation, the climate, the ground, the support expected and the strength and dispositions of the enemy. A normal scale of ammunition is laid down but is varied as necessary, for example, fighting in built-up areas uses up a lot of grenades. In defence, large quantities of ammunition are usually dumped well forward ready for use in repelling enemy attacks.

Self-loading rifle (7·62-mm)

58. The self-loading rifle is an individual weapon sighted to 600 yards. Its most effective tactical range is up to 300 yards and it is capable of producing a high rate of accurate fire. The magazines of this weapon can also be used on LMGs which have been converted to 7·62-mm calibre.

Light machine gun (LMG)

59. The section LMG has an effective tactical range up to 400-600 yards depending on the skill of the user. The weapon can deliver a volume of accurate fire employing a team of only two men. It can fire single shots or bursts. For firing the LMG on fixed lines in darkness, fog or smoke, a tripod is available for a total of 12 LMGs per battalion.

Sub-machine gun (SMG)

60. The individual SMG can be fired accurately up to a range of 75 yards. It is a light automatic for close range work and is particularly effective in close country and built-up areas.

3·5-inch rocket launcher

61. This is the platoon anti-tank weapon which has a maximum effective range of 100 yards against a moving target. It can engage an area target up to 900 yards. It is also effective against gun emplacements and houses prepared for defence. The weapon team is two men. The launcher weighs 12 lbs and the rocket 8¾ lbs.

Light mortar

62. This is a platoon weapon for discharging smoke or illuminating bombs. The maximum range is 525 yards. The weapon gives off a puff of smoke every time a bomb is fired so it is hard to conceal. It is sometimes necessary to fire the mortar from a position in the open but whenever possible, it should be fired from a carefully concealed position which gives bullet-proof cover to the firer and screens the smoke from the barrel.

Grenades

63. The Mills high-explosive grenade (No. 36) is an individual weapon which can be thrown 20-30 yards. White phosphorous smoke grenades (No. 80) are carried as ordered.

64. The section anti-tank weapon is the Energa Grenade (No. 94E) which is a powerful grenade fired from the rifle. It is accurate up to 75 yards.

CHAPTER IV

INFORMATION AND INTERCOMMUNICATION

"On reconnoitring duties, an officer should always have with him 'his map, pocket compass and spying glass'. . . . His report should be of the greatest exactness 'and as little as possible left to conjecture, as the consequence of an incorrect report may be very fatal'".—Regulations for Rifle Corps, 1803, quoted by Major General J. F. C. Fuller.

SECTION 10.—INFORMATION

General

65. A commander in the field has to base his plan on the information available to him. The more accurate and up-to-date the information is, the more likely his plan is to succeed. Forward troops in the line act as the eyes of their commander and they must send him frequent reports of anything they have seen which will help to build up an overall picture of the situation.

66. It is often difficult for junior leaders in close contact with the enemy to find time to send back reports but they must do so as their commanders cannot act or plan without up-to-date information.

Information required

67. Information required by a commander in battle falls under three main headings:—

(*a*) Enemy forces.
(*b*) Own forces.
(*c*) Ground.

Enemy forces

68. (*a*) Where are they?
(*b*) In what strength: Infantry? Armour? Artillery? Transport?
(*c*) What are they doing?
(*d*) What have been their losses: Men? Tanks? Guns? Vehicles?

69. It is important that hostile shelling and mortaring should be reported on the correct Shelrep form.

Own forces

70. (*a*) Where are they?
(*b*) What are they doing and what do they intend to do?

(*c*) What state are they in? Have they lost any men or equipment?
(*d*) What troops are on the flanks and what are they doing?

Ground

71. (*a*) What is the country like? It is hilly or flat, close or open?
(*b*) Are there any obstacles, natural or artificial?
(*c*) Can they be crossed and how?
(*d*) What is the state of the roads and tracks?

Reporting information

72. It will not always be possible to answer every question, especially about the enemy. Negative information may be most helpful, for example, that the enemy are not holding a particular place on the front.

73. Reports must be accurate. They must include only what an observer has seen as distinct from what he thinks he may have seen. Vague reports must be avoided. For example, "Enemy tanks seen on my front" does not give the number, time and place seen nor what they were doing.

74. Once an event has been reported, the information must be followed up. Higher HQ will always wish to know what has happened to enemy once reported, even if they have stayed still and done nothing at all.

75. Reports should always include:—

(*a*) *The time* of the event: there is always some delay between an event occurring and the time news of it reaches various HQs.
(*b*) *The place* where the event happened, including the grid reference; a report from a platoon commander referring to his front may mean nothing at all at brigade HQ.
(*c*) *The source* of the information: some reports are consistently more reliable than others. Reports from civilians and sometimes from other troops may be unreliable and have to be judged on their merits.
(*d*) *The action*, if any, which the sender is taking as a result of the information obtained.

76. In addition to sending information back, it should also be passed to the sub-units on both flanks. The men must also be kept informed of the progress of the battle on their own and, if possible, other fronts.

SECTION 11.—PRISONERS OF WAR

Enemy prisoners

77. Prisoners of war are a valuable source of information. Their examination and interrogation is the responsibility of specially trained intelligence staffs. Platoon commanders are responsible for sending back prisoners under escort to company HQ immediately after capture. The earlier they are interrogated, the more valuable their information is likely to be.

78. When enemy prisoners are taken, the procedure to be followed is:—

(*a*) *Disarming.* Prisoners must be fully disarmed. They must not be allowed to destroy any part of their equipment.

(*b*) *Segregation.* Officers, NCOs and men must be separated from each other. Talking must be forbidden. Prisoners must never be left unguarded.

(*c*) *Searching.* Prisoners must be thoroughly searched for maps and papers. These will be taken from them to prevent their destruction and will be sent back with the prisoners' escort as they may contain valuable information. It is forbidden to remove prisoners' identity tokens, badges of rank, decorations and personal valuables. Money will not be taken from prisoners except on the orders of an officer. In such cases, the sum taken must be recorded and a receipt must be given to the prisoner.

(War Office Code No. 5823 contains not only the rights of our men when captured but also emphasizes that enemy prisoners must enjoy the same treatment and rights).

79. If possible, our walking wounded should be used as escorts. The strength of the escort will vary according to the state of the prisoners' morale and the type of country. One man can escort one prisoner, but for more than one, a minimum of two guards is required in case a prisoner tries to escape. At night, more guards are needed than by day. This requirement may cause a serious drain on manpower, so prisoners are collected at company HQ which may then detail a section to escort as many as thirty or more at a time back to battalion HQ, the size of the escort depending entirely on the state of the prisoners' morale.

80. The escort should take with them:—

(*a*) All maps and papers which have been taken from the prisoners.

(*b*) A report on when, where and how the prisoners were captured.

Conduct of British prisoners of war

81. It is the duty of all ranks to avoid capture by the enemy. If they are taken prisoner, their first duty is to escape and rejoin our forces.

82. Information obtained from prisoners could be of great value to the enemy. According to the Geneva Convention of 1949 a prisoner must give his number, rank, name and date of birth when called upon to do so. He must refuse to give other information. Card F/PW/80 should always be carried into battle. All ranks must be fully briefed on what to do on their being made prisoner. A good guide to this subject is contained in Security Instructions 1956, Appendix G.

SECTION 12.—REPORTS

Verbal reports

83. In battle the section commander will, whenever possible, pass information to his platoon commander personally by a verbal report. The advantages of a verbal report are that it cannot be intercepted by the enemy and cannot be misunderstood by the recipient, as the NCO making the report can answer any queries and point out details on the ground or on a map.

84. A verbal report must be short and clear. Therefore the section commander must:—

(*a*) Think out beforehand what must be reported.

(*b*) If there is time, write down a few short notes so that no important details are forgotten.

85. A verbal report should be made clearly and without hesitation. No one can make a report when flustered or out of breath, and the officer or NCO to whom it is to be made will always allow the bearer of the report or message time to recover his breath and think out what he has to say.

Reports by wireless and telephone

86. Whenever practicable, a platoon commander should make verbal reports in person to his company commander. There are times, however, when it is neither possible nor desirable for him to do so and he must report on the wireless or the telephone, if he has one.

In either case, the same rules of brevity and clarity apply as for verbal reports. Section commanders may also be required to report by these means, especially when in command of patrols.

87. Provided the rules of security are observed, a normal conversation can be carried on by telephone but it must be remembered that enemy patrols may tap the lines and intercept conversations.

88. Talking on a wireless set is quite different. Before anyone can speak on the wireless, he must be taught Voice Procedure. Constant practice is needed to ensure good and secure communications. Practice is necessary to:—

(*a*) Distinguish and understand words during bad working conditions caused by atmospheric interference and interference from other stations.

(*b*) Become accustomed to one-way conservations.

(*c*) Acquire the particular manner of speaking (pronunciation, enunciation and special stress on words or syllables) which is necessary on the wireless.

SECTION 13.—MESSAGES

Written messages

89. It may be neither possible nor desirable to report by any of the means so far considered and it may be necessary to send a written message. This should be:—

(*a*) *Clear.* There must be no doubt about the meaning of a message. Handwriting must be legible.

(*b*) *Brief.* The shorter the message the better, provided that its meaning is clear. Unnecessary words are left out and the standard list of abbreviations should be used in message writing. These are given in Appendix "C" Staff Duties in the Field, 1949.

(*c*) *Accurate.* Such details as grid references, figures, dates and times must be carefully checked before the message is sent.

90. If possible messages should be written on the standard message form (F/Sigs/52) but if these are not available, they may be written on any paper. The following layout should be used in writing a message:—

From 6 Sec (Note (*a*)) Date—Time of Origin 071530 (Note (*b*))

To 5 Pl (Note (*a*))

Have reached BLACK KNOLL. NO enemy seen.
T. Atkins Cpl
(Note (*c*))

Notes:—

(*a*) After the word "From", the unit (in this case No. 6 Section) will be written and not the name of a person. The message is likewise addressed to a unit and not to a person.

(*b*) After "Date—Time of Origin" should be inserted six figures, the first two for the date of the month and the last four for the time. If the date of the month is the 9th or earlier, an "0" is inserted before the figure, as shown above.

(*c*) The message should be signed by the sender with name and rank only.

Instructions for message writing

91. Block capitals will be used for all place names and grid references will be given if possible. Cardinal points of the compass will be written in full in block capitals, for example, SOUTH of ALDERSHOT. For intermediate points the capital letters N, S, E and W will be used, for example, SW of ALDERSHOT. Personal names, regimental names and the word NOT will be written in block capitals.

92. The 24-hr clock system will be used when giving the time. Examples:—

Noon	1200 hrs
9 am	0900 hrs
9.30 pm	2130 hrs
1.30 am	0130 hrs

93. These rules have been framed to make messages brief and easier to understand. However, an NCO should not hesitate to send a message merely because he is doubtful about these rules or the abbreviations. It is the contents of the message which matter most.

Verbal messages by runner

94. This is the least satisfactory way of passing information since misunderstandings can easily occur. Even a simple message may be distorted by changing or leaving out a single word. A verbal message should take the same form as a written message, except that the time only and not the date need be given.

95. Verbal messages should always be short. The sender of the message should:—

(*a*) Pick a sensible man to take it.

(*b*) Think it out carefully so that he can give it to the messenger without hesitation.

(*c*) Dictate it slowly and clearly.

(*d*) After a pause, make the messenger repeat it twice to ensure that he has memorized it.

(*e*) Ensure that the messenger it quite clear where and to whom to take the message and what route he is to follow.

SECTION 14.—SECURITY OF INFORMATION

96. No information may be included in a private letter which may give away information to the enemy. A detailed list of Prohibited Subjects for private letters is given in Paragraphs 264 and 265, Chapter XI, Military Security Instructions, 1956. It is forbidden to use codes, ciphers or shorthand in letters or to include any maps or documents. Photographs of a purely personal nature may be sent if no Prohibited Subject is included, either in the foreground or in the background. Photographs may not be included in privileged mail or in correspondence to neutral or enemy countries. Soldiers' letters are censored in war-time by their officers.

97. The location of a unit must not be disclosed to the enemy. Only the army post office will be used. The correct form of address, which will be made known to all ranks in unit orders, must be used. The name and address of the writer will not be shown on the outside of envelopes nor will they be shown on postcards, except field service postcards as shown in the next paragraph. Field service postcards may not normally be addressed to neutral or foreign countries (*see* the Manual of Military Intelligence).

98. The field service postcard will not as a rule be delayed in transit by the censor staff provided that:—

(*a*) In the case of Army Form A 2042, nothing has been added except the address, sender's name, date, date of last letter received and lines deleting sentences not required.

(*b*) In the case of Army Forms A 2041 and A 2043, they are used only for the purpose for which they are designed (change of address, admission to hospital).

99. In war-time also, a green envelope, Army Form W 3078, is issued to troops for writing letters of a private or family nature. Letters enclosed in these envelopes are not censored by the unit but they are liable to censorship at the base. These envelopes are a privilege and the scale of issue is laid down by the C-in-C. It is a serious offence to misuse these envelopes and any abuse may lead to everyone losing the privilege. For further details of unit censorship, see the Manual of Military Intelligence.

100. Troops in forward areas should never carry anything which may give information to the enemy. In this category are:—

(*a*) Marked maps showing positions of our troops.

(*b*) Any document, including private letters, which shows the name of the unit or formation.

101. All waste paper in camps and billets must be destroyed. None must be left behind when troops leave.

Communication and telephone security

102. Every transmission by wireless is liable to interception by the enemy. The information gained in this way will supplement that received from other sources such as patrols, prisoners of war and air reconnaissance and may enable the enemy Intelligence to build up an accurate picture of our future operations and Order of Battle. The rules of Voice Procedure must therefore always be obeyed.

103. The rules for speaking on the wireless are:—

(*a*) Before speaking, think out what is to be said.

(*b*) Use correct Voice Procedure.

(*c*) Use only the authorized call signs, appointment codes, code (SLIDEX) and grid reference code (GRIDDLE).

(*d*) Refer to units by their correct address groups and never by their names or nicknames.

(*e*) Never use jargon. For example, do not refer to aircraft as "Our feathered friends".

(*f*) Do not encode facts about the enemy or his locations.

(*g*) Give the position of our own troops in code but do not qualify the code. For example:—

(i) Do not give the code for the location with a fact known to the enemy as in "Have just captured enemy gun at PLUM (code word) or JQNDPR (griddle code)".

(ii) Do not connect descriptions of places with code words or encoded grid references as in "I am at village PLUM" or "I am at village JQNDPR". Say "I am at PLUM" or "I am at JQNDPR".

104. It is also possible for the enemy to tap telephone lines, especially when the battle is static. The security rules for speaking on the wireless therefore apply equally to telephone conversations. It is particularly dangerous to talk about future events either on the wireless or the telephone and this should not be done unless it is certain that the enemy will not have time to make use of any information he may intercept.

The Phonetic Alphabet

105.

Letter	*Word*	*Letter*	*Word*
A	ALFA	N	NOVEMBER
B	BRAVO (*BRAH*VO)	O	OSCAR
C	CHARLIE	P	PAPA (PAHPAH)
D	DELTA	Q	QUEBEC (*KWI*BECK)
E	ECHO	R	ROMEO (*ROH*MEO)
F	FOXTROT	S	SIERRA
G	GOLF	T	TANGO
H	HOTEL (*HOE*-TEL)	U	UNIFORM
I	INDIA	V	VICTOR
J	JULIETT (*JU*LIETT)	W	WHISKEY
K	KILO (*KEELO*)	X	XRAY
L	LIMA (*LEE*MA)	Y	YANKEE
M	MIKE	Z	ZULU

Note:—For further details *see* Section 2, Signal Training (All Arms), Pamphlet No. 7, 1955. (W.O. Code No. 8943).

CHAPTER V

BATTLE PROCEDURE

"I may lose a battle but I will never lose a minute".—Napoleon.

SECTION 15.—PREPARING FOR BATTLE

106. Before an operation takes place, reconnaissance is carried out, a plan is made and orders are issued for its execution. During this process, commanders of units and sub-units involved are included in one or both of two groups:—

(*a*) Reconnaissance Group (R Group).
(*b*) Orders Group (O Group).

R Group

107. R Group consists of the commander and those whose presence is essential to him during his reconnaissance. If too many people are included, they may be seen by the enemy resulting in casualties and loss of surprise.

108. The platoon R Group will usually be the platoon commander, his runner and sometimes his batman/operator. The commander of any supporting element in his area may join the group.

O Group

109. O Group comprises those whom the commander gives his orders. The platoon O group is:—

(*a*) R Group.
(*b*) Platoon sergeant.
(*c*) Section commanders.
(*d*) The platoon anti-tank and light mortar commanders.

110. There are times when some of those usually included in the O Group may be on other duties or their role may be such that they can safely be briefed later. This is often the case with the sergeant who may be looking after the platoon while the commander gives orders to the rest of O Group. In this event, the commander must give the sergeant his orders as soon as he can afterwards.

Essentials of battle procedure

111. Good battle procedure depends on two essentials:—

(*a*) When commanders receive new orders or information about a forthcoming operation, they issue a Warning Order at once so that their subordinates may get on with their own preparations.
(*b*) While commanders carry out this reconnaissance and give their orders, the administrative preparations and moves of the troops are taking place simultaneously.

Warning Order

112. It is obvious that this can only happen if a Warning Order is issued to all concerned as soon as the first news of an operation is received. A Warning Order should include:—

(*a*) A brief outline and forecast of the operation.
(*b*) An RV for the O Group.
(*c*) The words "NO move before ..... hrs" or "Be at ..... hrs notice to move". This avoids keeping men in a state of tension unnecessarily and shows how much time is available for food and rest.

Sequence of preparation

113. In the platoon, the sequence of preparation before battle or, in other words, the platoon battle procedure, is as follows:—

Serial	Action by Platoon Commander	Action by platoon	Remarks
1	Issues Warning Order		By runner or wireless if at company HQ.
2	Carries out reconnaissance	(*a*) Sergeant passes Warning Order to section commanders. (*b*) Prepare for battle arms, ammunition, tools, meals. (*c*) O Group leaves for RV given in Warning Order.	If there is not much time, reconnaissance may have to be cut short. The essentials are the plan and the orders.
3	Makes plan.		
4	Gives orders to O Group.	Complete preparations and move off to RV or rest.	Depending on the time available and how far the platoon must move before the operation. Section commanders must have time to prepare and give their own Orders.

SECTION 16.—RECONNAISSANCE

114. When a platoon commander makes his reconnaissance, what he looks for depends on the operation to be carried out. Before an attack, he looks for lines of advance; in defence, he looks for fields of fire. In defence under nuclear conditions, he looks for good observation posts, concealment and lines of withdrawal.

115. Reconnaissance should be planned. The platoon commander must:—

(*a*) Get all the information available about the situation.
(*b*) Be quite sure he knows the aim of his reconnaissance.
(*c*) Decide what to look for to achieve that aim.
(*d*) Consider the time available before he gives out orders and allow enough for making his plan and, if necessary, a rough model: section commanders seldom have a chance of seeing the ground before an attack. He can only spare for reconnaissance the amount of time which he still has left.

116. The platoon commander must pay attention to his personal concealment before making a reconnaissance in the forward area.

SECTION 17.—PLANNING

The appreciation

117. When a person is faced with a problem, he thinks out possible solutions and decides which one suits him best. In the army, commanders are taught to deal with tactical problems in this way, thinking them out in a logical sequence so as to arrive at a plan. This process is called making an appreciation. With practice, it becomes instinctive.

118. The sequence of making an appreciation is:—

(*a*) *Decide what is the aim.*
(*b*) Weigh up the factors which affect the aim.
(*c*) Decide what courses are open to both sides in consequence.
(*d*) Decide which course is best and make a plan accordingly.

The aim

119. In the attack, the aim must not be confused with the objective although it may relate to it as, for example, when it is to capture a certain objective. In defence under nuclear conditions there may be two aims and a nice balance must be struck between them, for example, to observe and report information and to contain any enemy penetration.

Factors

120. Anything which affects the attainment of the aim is a factor. Factors may be conveniently weighed up under such headings as:—

(*a*) Ground (much the most important).
(*b*) Covering fire (best use of).
(*c*) Time and space.
(*d*) Relative strengths.
(*e*) Weather.
(*f*) Administration.

Courses open

121. The courses open to the side with the initiative should be considered first as the most likely of these will affect the choice of course by the other side. Only feasible courses need be taken into account.

Plan

122. Once a decision has been made on the best course to take, a plan can be made. This plan will be the basis for the orders which the platoon commander will give to his O Group.

SECTION 18.—ORDERS AND BRIEFING

123. Within the infantry battalion, orders are usually given verbally. Commanders must be prepared to receive orders over the wireless. At each level, they extract from the orders they receive all matters affecting their command so that they can pass them on to their subordinates.

124. Orders are give so that all concerned know:—

(*a*) What their commander aims to do.
(*b*) How he intends to do it.
(*c*) What part they themselves have to play.

125. Orders will be given clearly and confidently. They should always be given in logical sequence. There is a standard form of doing this which helps to ensure that nothing important is left out and makes orders easier to follow. Orders should be as short as possible.

126. When a platoon commander goes to a company O Group to receive his orders, he must take his note book. To save time, he should write down the headings which his Warning Order suggests will be needed. *See* Paragraphs 129-136.

127. If his O Group have not been able to see the ground, the platoon commander should make a rough model on which to give his orders. This should enable him to point out places

and features to which he will refer and give distances. He will make the model with any material available, from his own knowledge of the ground and with the aid of maps and air photographs if he has them.

128. Before the platoon commander begins his orders, he should check that all the O Group are present and that all can hear him clearly. He should not allow interruptions during orders but at the end he should give time for everyone to check his notes before asking "Any questions?"

Sequence of orders

129. Orders will always be given in the standard sequence which is:—

Ground.
Situation.
Mission.
Execution.
Administration and Logistics.
Command and Signal.

Situation

130. (*a*) *Enemy Forces.* Known strength and positions affect the platoon should be given.

(*b*) *Friendly Forces.* Platoon orders should give the battalion and company missions, activities of flanking platoons, supporting arms and support weapons. Section orders should give the company and platoon missions and information about flanking sections and supporting arms.

Mission

131. The platoon's mission is the task given to it by the company commander. The section's mission is the task given to it by the platoon commander. It will be given as a brief clear statement of what the commander intends to do, not how he intends to do it. The word "Will" must always be used when stating the mission as in the following examples:—

No. 1 Platoon will capture the copse.
No. 2 Section will hold the footbridge.

132. The mission is the most important part of the orders. If subordinates have been told clearly what their commander wants to do, they can at least make an intelligent effort to do it. But if they do not understand his intention, things are sure to go wrong.

Execution

133. The execution section should state briefly and clearly how the mission is to be carried out:—

(*a*) It should begin with a general outline. For example, No. 1 Platoon commander giving orders for an attack might say "The platoon will attack two up. Left No. 2 Section, Right No. 1, Reserve No. 3".

(*b*) Detailed tasks should then be given to each section and the platoon weapon teams in turn:—

No. 2 Section—Left assault section.
Task—Clear left end of orchard.
Reorganization — Fifty yards forward of orchard.
Arc—Left and front.

(*c*) Co-ordinating instructions, which are instructions common to more than one sub-unit, are then given. They may include:—

(i) Timings	—	Leave assembly area. Leave FUP. H hour.
(ii) Assembly Area	—	Location. Action. Order of march on leaving.
(iii) FUP	—	Location. How marked. Action.
(iv) Start Line	—	Location. How marked.

134. If an operation is to be carried out in more than one phase, it is best to give separate orders for each phase before it begins.

Administration and Logistics

135. In this section the commander should say if there are any changes in the normal equipment of the platoon or section. Any essential details of ammunition supply and medical and feeding arrangements will also be given.

Command and Signal

136. In this section, the platoon commander must include:—

(*a*) Where he will travel or be.
(*b*) Where platoon and company HQ will be.
(*c*) Any pre-arranged signals by light or other means.
(*d*) Channel for wireless set.

Questions

137. The commander will answer any questions after the O Group have had time to study their notes.

Briefing

138. There is always a risk that leaders may become casualties early in the battle. All NCOs and men should therefore know not only what they must do themselves but should understand the higher commanders' intention. Good briefing will result in men going into battle with greater confidence and higher morale because they will know the ground they are to go over, understand the purpose of their movements and appreciate what is going on around them. If there is time, therefore, the platoon commander should brief his men before every operation unless this is done by the company commander himself. Briefing should follow the following sequence:—

(*a*) Ground.
(*b*) Situation.
(*c*) General plan.

139. Men should be briefed with the aid of a rough model or diagram. The model must be realistic in scale and should show only essential features and detail. The way in which the briefing officer brings the model to life is important. He should stick to those details which directly affect the way his men must act to carry out their task. He must be brief to hold their attention throughout and he should exclude executive details which must be given to the O Group. Except when time is so short that the platoon has to move off on its task almost at once, collective briefing is no substitute for normal orders but it should cut down the time spent on the " Situation " section.

CHAPTER VI

BATTLECRAFT—PART I

" Add a step to it ".—A Spartan mother's answer to her son who complained that his sword was too short.

SECTION 19.—INTRODUCTION

Theory of fire and movement

140. The primary aim of the infantry is to close with the enemy and kill him: to do this, infantry must move. They may be able to move under cover of the ground but the enemy will usually select positions which, as far as possible, give no ground cover to the attackers. He will also do his utmost to stop their

advance with obstacles and fire. It follows, therefore, that attacking infantry must use their fire to make the enemy keep his head down and so make their own advance possible.

Individual training

141. This combination of fire and movement is the basis of platoon and section tactics. It calls for a high standard of individual training, especially in:—

(*a*) Physical fitness.
(*b*) Marksmanship.
(*c*) Firing from cover.
(*d*) Battle handling.
(*e*) Moving with rifles and LMGs.

Teamwork

142. Fire and movement is, above all, a matter of team work which results from good leadership, a thorough knowledge of the platoon weapons and their application to ground, and much practice.

SECTION 20.—SECTION FORMATIONS

Basic formations

143. There are six basic section formations:—

(*a*) *Single file.* This is useful for control during the early stages of a night attack and for following linear features such as hedges, ditches and walls. When a point section is in single file, the LMG group should move behind the rifle group. The section commander may lead or move as No. 3 in the rifle group.

(*b*) *File.* This helps the rear section commander to control his section in close country but it presents a rather concentrated target. It is useful at night.

(*c*) *Arrowhead.* This is a good formation for crossing open country.

(*d*) *Spearhead.* In this formation, the rifle group is in arrowhead, led by the section commander, and the LMG group is behind the base of the arrowhead. The formation is easy to control, presents shorter flanks than arrowhead and is useful when there is no obvious flank for the LMG. It is a slightly more vulnerable target than arrowhead and not quite so good for producing immediate fire. Opportunities for using this formation are limited.

(*e*) *Extended line.* This is the assaulting formation.

(*f*) *Diamond.* This formation is only used when crossing open country at night. It is an easy formation to control and gives good all-round observation and protection. Each man in the diamond must be able to see the next man. The commander may be either at the front or in the middle.

144. These formations can be varied slightly to suit different conditions and ground. The section commander should be appreciating the ground all the time and must alter his formation as often as necessary to conform. In particular, he should constantly appreciate where his LMG group should move to the best advantage.

Choice of formation

145. Sections will deploy when within range of enemy small arms fire. The formation adopted will depend on:—

(*a*) Ground.
(*b*) Visibility.
(*c*) Direction from which enemy fire is expected.
(*d*) The need for control by the section commander.
(*e*) The need for producing the maximum fire with the minimum delay.

Intervals

146. The LMG group should usually be on the open flank or the flank which has the best intermediate fire positions such as undulating or higher ground. It is not possible to lay down the interval between soldiers since this will depend on the ground but as a general rule, the dispersion of the whole section and platoon on the battlefield should be up to the limit of control. As a guide, in open country the interval between soldiers should not be less than five yards by day. When under fire, troops tend to bunch together instinctively and this must not be allowed. Distances between groups cannot be laid down but except in the actual assault, both groups must be within voice control of the section commander.

Minor tactics

147. During the advance, the section commander should handle his section to make the best use of cover. Changing formation will be done at the double and all movement on the battlefield will be carried out at the best possible speed.

148. When the platoon is deployed, the section commander is still responsible for the protection of his section and may detail scouts for this purpose. Details on the employment of scouts are given in Chapter VIII, " Protection ".

Section 21.—FIELD SIGNALS

149. Amid the noise of battle, voice control becomes difficult. A commander can save his time and breath by using field signals and a whistle.

150. These are the standard field signals; they may be preceded by a short whistle blast to attract attention:—

(*a*) *Deploy*: the commander holds his open hand high above his head and waves it slowly from side to side, as low as his hips on either side; if he wants his men to deploy to either flank, he points to that flank at the end of the signal.

(*b*) *Advance*: he faces the way he wants to go, holds his are outstretched behind him and swings it overhead and forward pointing horizontally in the direction he wishes to go, palm downward.

(*c*) *Halt*: he stretches his arm upwards to its full extent with the hand open and palm to the front; he holds this position until the signal is understood by all in the section.

(*d*) *Go back and turn round*: he stretches his arm upward and moves his hand round and round above his head.

(*e*) *Close or join me*: he puts his hand on top of his head with his elbow pointing straight out to the side.

(*f*) *Enemy in sight*: the individual weapon is held above the head to the full extent of one arm; the weapon is held parallel to the ground and pointing towards the enemy.

(*g*) *Bren group*: indicated by the clenched fist.

Section 22.—GROUND AND COVER

Ground appreciation

151. In a battle, fire and movement is applied according to the type of country over which it is fought. In open country, the problem is how to find cover; in close country, there is the difficulty of finding positions with good observation and fields of fire. In attack or defence, the skilful use of ground can help to gain surprise and save lives. Much practice is therefore needed in developing an eye for ground. Ground should be considered from the enemy's point of view. It should be appreciated under the following headings:—

(*a*) Fire positions.
(*b*) Observation positions.

(*c*) Cover from fire.
(*d*) Cover from view.
(*e*) Obstacles.

Types of cover

152. Cover from view is often not cover from fire, especially if the move to cover has been seen by the enemy. Concealment from enemy air and ground observation is the chief means of gaining surprise. Some of the main types of cover are:—

(*a*) Undulating ground which is the least obvious form of cover; when skilfully used, it protects from direct fire and gives no ranging marks to the enemy.

(*b*) Sunken roads, beds of streams and ditches which give good cover from view and often from fire as well. However, there is always a danger that the enemy may pay special attention to them; they may be mined or booby-trapped and precautions against ambush must be taken. If the roads or ditches are straight, the enemy will be able to fire down them in enfilade.

(*c*) Hedges and bushes which give cover from view but not from fire. In open country they may make good ranging marks for the enemy.

(*d*) Standing crops which give cover from view but movement through them can generally be detected.

(*e*) Woods which give cover to men and vehicles from enemy air and ground observation. They give some protection from small arms fire but HE bombs and shells will explode in the branches of trees and will cause heavy casualties unless troops are dug in and have overhead protection.

(*f*) Buildings and walls which afford concealment and protection from small arms fire and shell splinters. When isolated they make good ranging marks for the enemy.

Dead ground

153. Ground which a soldier cannot see from his position is called dead ground. Platoon and section commanders should be able to recognize ground which is likely to be dead to the enemy. Ground can only be described as dead in relation to the position of an observer as in the example, "The track junction is dead to the enemy in the farm house". Troops under cover or in dead ground are safe from enemy observed fire but not from indirect fire. These areas are always likely to be selected by the enemy as defensive fire tasks for his artillery and mortars.

Common mistakes

154. The wrong use of ground may lead to casualties and loss of surprise; some common mistakes are:—

(*a*) Carelessness by officers or NCOs while making a reconnaissance, such as unfolding a map in the open or not using a covered approach to an OP.

(*b*) Unnecessary movement in a position overlooked by the enemy.

(*c*) Using conspicuous landmarks such as isolated trees, bushes, or cottages.

(*d*) Halting troops near road or track junctions or other mapped features which are always registered as targets by the enemy.

(*e*) Bad track discipline.

(*f*) Failure to guard against enemy air observation.

Maps and air photographs

155. Maps and air photographs should be used together to obtain the best picture of the ground. The two aids are complementary as is shown by listing the advantages and limitations of air photographs:—

(*a*) *Advantages.*

(i) Should be more up-to-date.
(ii) Give more detail.
(iii) Show the size and shape of features accurately.
(iv) Allow gradients to be seen in relief with a stereoscope.

(*b*) *Limitations.*

(i) Complete geographical cover almost impossible.
(ii) Expensive to produce.
(iii) Scales vary.
(iv) Details of heights not given.

156. Only the topographical information given by air photographs needs to be understood. The interpretation of the detail of enemy defences is the task of the experts. Very little time need be spent in mastering the theoretical knowledge of map-reading but a great deal of practice is required. The use of the prismatic compass and the protractor must also be mastered by sub-unit commanders. Navigation is a science and never a guess. An officer must have complete trust in his compass; this only comes with practice.

SECTION 23.—SELECTION OF LINES OF ADVANCE

157. The best lines of advance are those which provide the best positions for observation and fire and the best cover from the enemy's view and fire. The two do not usually go together; good OPs and fire positions are usually on high ground but covered lines of approach are in ground dead to the enemy which is often low ground. It may also be hard to keep direction. All these factors must be weighed up when a line of advance is to be selected. As a general rule, it is better to cross open country early in the advance if this is possible, and to use the covered approaches near the enemy positions.

Study of the map

158. The selection of lines of advance for a platoon is largely a matter of map reading. The best method of doing this is to follow the Keyword "GROUND".

G—General
R—Ridges
O—Observation
U—Undergrowth
N—Non-passable
D—Defilade

159. After deciding on the area to be studied, which must be wider than the area to be crossed or occupied, the map should be covered with a piece of talc and the headings of the Keyword should be applied as follows:—

(*a*) *General.* The map should be studied to get a rough idea of the general character of the area. It may, for example, be open or close, rolling downland or flat orchards.

(*b*) *Ridges.* All streams and the lowest parts of valleys and re-entrants (water-courses) should be marked on the talc with a grease pencil. The highest parts of ridges and spurs (watersheds) should be marked with single lines in some other colour.

(*c*) *Observation.* Good viewpoints or detailed features should be ringed with pencil.

(*d*) *Undergrowth.* The locations of scrub, woods, belts of trees and villages should be studied.

(*e*) *Non-passable.* Obstacles such as rivers, canals, railways, and villages should be noted.

(*f*) *Defilade.* Covered lines of advance to any point and areas which afford cover can now be picked out.

160. A clear picture of the ground as a whole should now have been formed together with a good idea of its possibilities

and disadvantages. It may even be possible to make an intelligent estimate of the enemy's probable positions and course of action. The talc should be cleaned and the plan made and recorded on the talc. After the detailed study of the map, it will be easy to remember the features and read the ground from the contours without the pencil markings made during the study.

Reconnaissance for lines of advance

161. Anyone making a reconnaissance must know what he is looking for and how to look for it. Reconnaissance must be confined to essentials and must be made from the nearest point from which these essentials can be seen. Reconnaissance for lines of advance may include:—

(*a*) Trying to locate the enemy positions.
(*b*) Deciding on the line of advance to be followed.

162. It is often unwise to decide on the whole of a line of advance at the original view point. The ground may not be the same in the later stages and fresh decisions may have to be made at each bound. The NCO who is ordered to lead his section round a flank should only need to be told the general direction he is to take. He should be trained to use ground himself and he must be relied on to use his own skill and judgment. It is no good to give an NCO detailed orders for a long line of advance. It may not be the best line and unforeseen circumstances may make deviations necessary.

SECTION 24.—KEEPING DIRECTION

163. It is often hard to keep direction, especially at night, in fog or in close country. When it is necessary to make a detour to avoid an obstacle or seek cover, it is easy for leaders to miss the correct line of advance.

164. Some of the aids to keeping direction are:—

(*a*) The compass, map and air photographs.
(*b*) A rough sketch copied from a map or air photograph.
(*c*) Keeping two prominent objects in view.
(*d*) Using a series of easily recognizable landmarks, each visible from the previous one.
(*e*) The stars and also the sun and moon if their natural movement in the heavens is understood.
(*f*) Memorizing the route from a map or air photograph. Helpful details are the direction of streams, distances between recognizable features coupled with pacing, and the course of contours.

(*g*) Trees in exposed country tend to grow away from the direction of the prevailing wind. Moss may grow on the leeward side of tree trunks.

(*h*) Remembering the back view; patrols and others who may have to find their way back should look behind from time to time and pick up landmarks to remember for the return journey.

(*j*) Leaving direction marks on the outward journey; these may be pegs, small heaps of stones or blazed trees.

(*k*) If the route is being walked by day by men who are to guide along it by night, they must take note of skylines and objects or features which they will be able to recognize in the dark.

(*l*) Using the sun and the hands of a watch to find the points of the compass; all NCOs must understand this method.

SECTION 25.—MOVEMENT

165. Movement in the face of the enemy should be covered by fire. This does not mean that it is impossible to move unless a heavy weight of fire is coming down on the enemy. An important part of an attack is the movement towards the objective; supporting fire is one of the aids to that movement. A knowledge of how to move and how to use ground for movement is essential to enable troops to close with the enemy with minimum casualties.

166. Usually, troops advancing by day in action will move at a brisk walking pace until they make contact; in the final stages of the assault, they will double. They may have to double or crawl at other times; for example, if attacking troops move into enemy defensive fire, it is usually best to double forward and through it; to lie down is often dangerous as well as useless. Doubling and crawling are both tiring, however, and should only be used in short spells in critical situations particularly for crossing open ground in full view of the enemy. The commander must himself decide on his pace from his personal knowledge of the state of fitness of his men. In general the aim must always be to keep moving determinedly towards the enemy at the best possible speed.

167. When crossing an open space like a gap in a hedge, it is best for the whole section or group to double across it together before the enemy has time to fire effectively. When wider gaps are under enemy observation, it may be necessary to filter men across now and again by crawling in ones and twos.

SECTION 26.—SELECTION OF FIRE POSITIONS

168. The selection of fire positions calls for knowledge both of the characteristics of weapons and the use of ground. The requirements of a fire position vary with the task; for example, in the attack, it should be easy to advance from the position: in defence, concealment and a covered approach may be more important. When on the move in the advance to contact, the section commander must be looking all the time for positions where his section can take cover when it comes under effective enemy fire.

169. To select the best fire positions calls for imagination. Sometimes it may be necessary to use trees, haystacks, walls or roof-tops to produce any fire effect at all. This may result in plunging fire but this disadvantage can be overcome by accurate shooting. Cunningly concealed positions will surprise the enemy with their fire and protect the occupants from enemy observed fire.

SECTION 27.—FIRE CONTROL

170. In battle, fire control is the task of the section commander and his second-in-command. Without fire control, much of the value of good fire positions will be lost. To control his section's fire and obtain the best fire effect, the section commander must know:—

(*a*) How to locate and indicate targets.

(*b*) How to estimate range accurately.

(*c*) What weapon to use.

(*d*) What type of fire to order.

(*e*) How to position himself so as to control the fire of his section. He must keep a constant watch on the ammunition supply and maintain an adequate reserve.

171. The simple aim of a fire order is to bring fire on to the enemy as quickly and effectively as possible. The most difficult part of any fire order is usually the indication of the targets. This is particularly true in the attack; in defence, every man in the section knows and is used to the ground around him and reference points and relevant ranges will have been given verbally.

172. In the attack or advance, the ground is usually unknown and sections are often on the move; ranges have not been accurately worked out and reference points may not have been given; the enemy may be dug in and well concealed and so targets may be hard to pick out. Too often on training, everyone

assumes that the section commander will be the first to see the enemy and at once give his fire orders. In war, however, it is the soldier who first sees the enemy, as often as not. Soldiers can rarely be expected to give a clear verbal indication quickly so tracer may have to be used. Tracer is a valuable means of indicating targets in the attack.

173. The self-loading rifle is now in service. It is most important that every soldier realizes the necessity of fire control so as not to waste ammunition. Firing for morale is wrong. In a fire and movement operation, it may be necessary to fire without the enemy being seen but this fire must only be the minimum necessary to make the enemy keep their heads down and to maintain fire domination over them. There is a clear distinction between fire control in the advance and in defence:—

(*a*) During an advance, an individual will open fire from the shoulder on any enemy he sees within range.

(*b*) In defence, however, no one will open fire except on the specific order of his sub-unit commander. This order must not be given too soon otherwise the position will be betrayed to the enemy and many hours of hard work spent in concealing it will be squandered in a few seconds.

Section 28.—SMOKE

174. Smoke is used to screen movement from enemy observation or aimed fire. It may also be used to distract the enemy's attention. For all practical purposes, smoke will only be used in the attack because it favours the attackers and hampers the defence.

175. In the platoon, smoke can be produced by smoke grenades and the light mortar.

176. Smoke is a valuable weapon but it has certain limitations which must be understood:—

(*a*) Weather conditions must be suitable. It is virtually impossible to lay an effective smoke screen in a high wind. A wind blowing at right angles to the screen will also reduce its duration and effectiveness. When there is no wind at all, a great deal of ammunition may be needed.

(*b*) Smoke affects other supporting fire; it usually makes aimed fire support impossible.

(*c*) The amount of smoke ammunition carried is comparatively small.

CHAPTER VII

BATTLECRAFT—PART II

"Our business, like every other, is to be learned only by constant practice and experience; and our experience is to be had in war, not at reviews".—Lt.-General Sir John Moore.

Section 29.—GENERAL

Aim

177. The aim of battlecraft is twofold:—

(*a*) Speed.

(*b*) Efficiency.

178. Experience has shown that it is an advantage to have a recognized and well understood method of tackling minor tactical problems when rapid action is essential for success. For this purpose, battlecraft includes a number of section and platoon battle drills. These drills are an orthodox technique for dealing simply and quickly with minor tactical situations. Everyone in the platoon must master the technique and then apply it sensibly. Thus everyone knows his job as a member of the team and can react with the minimum of orders to different situations and variations in ground.

179. The fact that there are certain standard ways of carrying out minor tactical operations does not mean that they should always be applied completely and without variation. On the contrary, formations, distances and timings should not be rigidly observed. Battlecraft must always be related to the ground. It is therefore wrong to teach it on the barrack square; this leads to rigidity of thought and false lessons.

Method of teaching

180. The method of teaching should be as follows:—

(*a*) An explanation followed by a discussion of the battle drill.

(*b*) A demonstration showing the particular drill being taught. If a demonstration of the wrong way is also given, care must be taken not to exaggerate and show men in ridiculous situations.

(*c*) Slow motion practice of the drill.

(*d*) Further practices on different kinds of ground with more stress on speed, individual fieldcraft and weapon handling, as well as teamwork.

181. When platoon and section commanders have been trained in normal battle procedure including making appreciations and giving verbal orders, the next stage in their training

is to learn to increase the speed and efficiency of their sub-unit operations by battlecraft. In this chapter, battlecraft will be dealt with under the following sections:—

(*a*) Fire and movement.
(*b*) Battle appreciations.
(*c*) Section battle drills.
(*d*) Platoon battle drills.

SECTION 30.—FIRE AND MOVEMENT

182. The section must be taught fire and movement for the following reasons:—

(*a*) It saves unnecessary casualties, especially in the withdrawal.
(*b*) It teaches the basic principle of all tactical doctrine and, as such, serves as an introduction to higher tactics for junior leaders.
(*c*) It exercises most of the basic infantry skills which are needed in this kind of operation—fieldcraft, weapon handling, physical fitness, teamwork, fire control, command and leadership.
(*d*) It develops an aggressive spirit in the soldier.
(*e*) It produces a more offensive and therefore effective fire section in support of a platoon attack.
(*f*) A section often has to overcome minor opposition when acting as point section or to deal with enemy interference from a flank. It may also have to carry out small independent operations during the mopping up phase of an attack, especially in nuclear war.
(*g*) It is useful for fighting patrols.
(*h*) It is the basic battle drill in jungle fighting.

Principles

183. There are five basic principles for section and platoon fire and movement, once contact with the enemy has been made:—

(*a*) Control by the commander.
(*b*) Speed.
(*c*) Movement on exposed ground without covering fire reduced to the minimum.
(*d*) Angle of covering fire as wide as possible without loss of control or time.
(*e*) Use of ground: all available cover within the limits of boundaries laid down should be used. Where cover is lacking, the use of smoke from the light mortar or grenades will always be considered.

Application

184. Although sections and platoons use fire and movement when operating independently as, for example, in advance to contact, it is more often applied when fighting through the objective during a major attack. The frontage of a platoon then seldom exceeds 200 yards; in training, therefore, sub-unit commanders must not be allowed to make unnecessarily wide flanking movements. It must be clearly understood at what level the combination of fire and movement is taking place, that is to say, who fires and who moves. This chapter deals mainly with fire and movement within the platoon but more often than not, when the platoon takes part in a company or battalion operation, its role will be to move while other platoons, the battalion support weapons, the artillery and the tanks provide the fire. In this case, it is the duty of the platoon commander to keep his whole platoon moving at all costs as close up to the supporting fire as possible. Hesitation or stopping in the open under fire only results in far heavier casualties without reaching the objective.

SECTION 31.—BATTLE APPRECIATIONS

Section level

185. The section commander may be faced with two possible situations:—

(*a*) If caught in the open within charging distance, the only possible course is to assault.
(*b*) If stopped by enemy small arms fire at normal range, he must decide:—
(i) Direction of assault.
(ii) Position for the LMG.

His decision depends on the ground but if the LMG is already committed on one flank, it will usually have to get into a fire position on that flank. Moving the LMG from one flank to another within 200 yards of the enemy is generally not feasible.

Platoon level

186. At this level there is seldom enough time for a full detailed appreciation in the standard form. In a fast moving situation in close contact with the enemy, the platoon commander must make an immediate plan based on a shortened form of battle appreciation. To help in this he must remember only three headings:—

(*a*) Aim.
(*b*) Ground.
(*c*) Plan.

187. At platoon level:—

(*a*) The aim is usually the task set by the company commander.

(*b*) The ground should be divided into left, centre and right and considered for:—

(i) Enemy dispositions.
(ii) Cover for movement.
(iii) Positions for covering fire.
(iv) Obstacles } and their effect on speed.
(v) Distances }
(vi) Assault position: there is no FUP in platoon fire and movement.

(*c*) The plan is dictated by the ground; the commander has to decide which platoon battle drill is applicable.

Section 32.—SECTION BATTLE DRILLS

188. The section attack has been broken down into six basic drills; each can be taught as a separate lesson and the drills together form the logical sequence of action to enable a section to overcome minor opposition using fire and movement. As soon as they are understood, they should be applied to properly conducted tactical exercises.

SECTION BATTLE DRILL 1—BATTLE PREPARATIONS

Preparations for battle

189. (*a*) Personal camouflage: break up the outline of the steel helmet, haversack and shoulders using scrim, net, face veil and local foliage typical of the country over which the section is to operate.

(*b*) Check that weapons are clean and serviceable and sufficiently oiled for the type of country and climate. Set sights at 200 yards.

(*c*) Check that ammunition is clean and that magazines and grenades are properly distributed. Flank men in open country may need smoke grenades.

Section commander's orders

190. The section commander will number off his men before giving them his orders under the following headings:—

(*a*) Ground: to include reference points if possible.

(*b*) Situation:—

(i) Enemy forces.
(ii) Friendly forces; details of platoon formation and task.

(*c*) Mission: the section mission.

(*d*) Execution:—

(i) Route, if applicable.
(ii) Section formations.
(iii) Flank for the LMG.

(*e*) Administration and Logistics: any necessary information from the platoon commander's orders.

(*f*) Command and Signal: any necessary information from the platoon commander's orders.

Reference points and anticipatory orders

191. In the advance to contact, the section commander will be on the lookout as he moves for:—

(*a*) New reference point for fire orders. He will usually pick two or three within about 400 yards range in a wide arc on his front. He will describe these to the section as they advance; each man will either acknowledge with a hand signal or shout "Not seen".

(*b*) Positions where the section can take cover if it comes under effective enemy fire. Whenever possible, the section commander will point out such positions in anticipatory orders such as "If we come under effective fire, LMG group take cover in scrub, rifle group line that bank". Some such indication will certainly be necessary in country where there is little cover, or on a steep forward slope.

192. Unnecessary shouting should be avoided at this stage. It only gives the show away.

SECTION BATTLE DRILL 2—REACTION TO EFFECTIVE ENEMY FIRE

193. Sections must be trained to continue the advance in spite of the noise of fire directed at someone else and regardless of stray rounds amongst them.

Effective enemy fire in this situation is enemy small arms fire which would cause heavy casualties if the section continued on it course. Most men instinctively drop to the ground when under effective fire. This action is generally wrong because the enemy usually opens fire when his target is in a place offering little or no cover. The best course is to run, thereby making a difficult target. This action would lead to loss of control by the section commander unless carried out as a drill as follows:—

(*a*) The executive order to take cover will be given by the section commander as "Take cover".

(*b*) On the command "Take cover", every man will run to the nearest cover or that pointed out by the section commander in his anticipatory order. No man will run more than 20 yards unless running to cover pointed out by the section commander.

(*c*) Every man will dive or drop into his cover and at once crawl some way so that the enemy cannot have his sights on him when he re-appears.

(*d*) Every man will move up to a position of observation; any man out of earshot of the section commander must crawl close enough to be able to hear his voice.

(*e*) Any man who actually spots the enemy will return the fire, with tracer if available, without waiting for an order from the section commander.

(*f*) In principle, when contact has been made, no man in the section should be idle. Everyone should be either:—

(i) Observing;
or (ii) Firing if the enemy is seen;
or (iii) Moving to a new position of observation;
or (iv) Moving to a new fire position.

(*g*) Bunching must not be allowed. Apart from the LMG team when necessary, no man in the open by day should ever be within five yards of his nearest neighbour.

194. This drill may be summarized as follows:—

(*a*) "*Take cover*" ordered by the section commander.

(*b*) *Dash—Down—Crawl—Observe—Sights—Fire.*

SECTION BATTLE DRILL 3—LOCATION OF ENEMY

195. Location of enemy fire is usually not easy. Failure to locate the enemy means that the section will be unable to move without suffering heavy casualties except under cover of smoke; it may lead to loss of initiative by the section and the halting of the platoon advance.

196. There are three stages in this drill:—

(*a*) *Observation.* Look in the area from which the thump came; the time between the crack and the thump gives a clue to the range. Look for movement, smoke or anything unusual. If nothing is seen after about thirty seconds or so, it is unlikely that the enemy will be located by looking.

(*b*) *Fire.* The section commander will give a fire order to a couple of riflemen to fire two shots into likely cover. The rest of the section will keep a careful watch on their arcs of observation. If there is no answering fire, the section commander should try some other likely target.

(*c*) *Movement.* The section commander will order two men to get up and double forward about ten yards to different cover. He might do this again if no fire is drawn the first time. If the enemy is there, he must be well trained not to fall for these old tricks and begin firing at such poor targets; a man getting up and dashing ten yards is a very hard target to hit. If there is still no enemy reaction, the section commander must carry on with the advance.

Target indication

197. If any soldier should locate the enemy before his section commander, he will load tracer in his rifle, shout out loudly "Watch my tracer" and fire, until the section commander gives a fire order on the strike of the tracer.

(*Note*:—This method of target indication will only be introduced when Ammunition Scales have been amended to provide tracer for riflemen).

SECTION BATTLE DRILL 4—WINNING THE FIRE FIGHT

198. As soon as the section commander knows the enemy's position, he must give a fire order to bring sufficient weight of fire on the enemy to neutralize them. If one or more men who have spotted the enemy have begun firing, the section commander regains control by shouting "Stop" before his fire order.

199. While winning the fire fight, the section commander must make his battle appreciation. Having won the fire fight, the section commander must keep the initiative by continuing to bring fire down on the enemy while his section closes for the assault.

SECTION BATTLE DRILL 5—THE ASSAULT

Battle Orders

200. These will be as brief as possible. There is no need to mention the enemy position if this is known to all concerned. The mission will have been given out before the advance began.

The battle order will always be one of the following, depending on the number of phases in the attack:—

(*a*) For a one phase attack, that is one in which the rifle group goes straight in to the assault:—
- (i) *Left or right flanking.*
- (ii) *Rifle group prepare to assault.* (*LMG group fire*).
- (iii) *Rifle group move.*

(*b*) For a two phase attack, LMG group moving to another position before the rifle group's assault:—
- (i) *Left or right flanking.*
- (ii) *LMG group move first to. . . . Prepare to move.*
- (iii) *Rifle group fire.* (*LMG group move*).

(*c*) For a three phase attack in which the rifle group moves first, then the LMG group moves and finally the rifle group assaults:—
- (i) *Left or right flanking.*
- (ii) *Rifle group move first. LMG final position. . . .*
- (iii) *Rifle group prepare to move.* (*LMG group fire*).
- (iv) *Rifle group move.*

The orders in brackets will be unnecessary with a really well trained section. The LMG group will fire or move automatically on the previous order to the rifle group. Left or right flanking merely indicates which side of the LMG group the rifle group is to work.

Execution

201. (*a*) The section commander will lead the rifle group. He will keep the LMG group under voice control until it is in its final position to cover the assault. Groups will move in turn until the LMG is in a position from which it can support the assault from a good angle when the rifle group goes on to assault in one bound. The LMG should not move more than is necessary to achieve this.

(*b*) All movement in the open by either group must be covered by the other group. The angle between the two should be as wide as possible. The rifle assault group can widen the angle by swinging outwards as they assault.

(*c*) When the rifle group drops into fire positions after a bound, the LMG group must move forward to a new fire position automatically unless it has already reached a position from which it can effectively support the assault.

(*d*) The assault should go in as fast as possible, bearing in mind that control is essential. During the assault, if any riflemen sees a good target, he will fire a quick aimed shot from the shoulder. If for some good reason, such as a pause in the supporting fire from the LMG, the section commander thinks that more fire is required on the objective, he may order "*Bullets*" when the section will each fire one aimed shot from the shoulder. For the final assault, the section commander will order "*Charge*".

(*e*) No. 2 of the LMG group is responsible for watching the section commander and listening for his orders and also for watching the movement of the rifle group so that covering fire can be given at critical moments and can be varied from slow to rapid as necessary. This helps to conserve ammunition and ensures that covering fire is given when it is most needed. The No. 2 will fire his rifle when the LMG has a stoppage or magazines are being changed as fire must be maintained while the rifle group is moving in the open. These are the only occasions when the No. 2 fires his rifle.

(*f*) The men of the LMG group carry enough magazines to support a normal section attack.

(*g*) As the assault goes in, the LMG group will fire as long as possible and then switch its fire across the objective just in front of the rifle group.

SECTION BATTLE DRILL 6—REORGANIZATION

202. Once the assault has been made, the following reorganization will take place as a drill:—

(*a*) The LMG group will rejoin the rifle group at the double as soon as the rifle group takes cover after the assault.

(*b*) The section commander will order a search of the area of the objective for any enemy wounded or hiding. Riflemen detailed to search will be covered by other riflemen.

(*c*) The section commander will check the positions of riflemen and LMG group, allot arcs of observation and detail reference points.

(*d*) The section commander will check:—
- (i) Casualties.
- (ii) Ammunition.
- (iii) Re-filling of magazines.

(*e*) The section commander will watch the platoon commander for further orders.

SUMMARY

Situation	Section drill	Orders by section commander	Action by section
Before moving	1. Battle preparations	Prepare for battle Arrowhead: LMG right	Carries out details of drill and forms up ready to move.
Advancing		"Reference point—200—quarter right—dead tree—known as tree. If we come under effective fire, line that bank"	Men acknowledge
Under effective enemy fire	2. Reaction to effective enemy fire	"Take cover"	Dash — down — crawl — observe — sights — fire
Enemy fire continues	3. Locating the enemy	(If no rifleman fires) "1 and 2 riflemen — 200 — area tree — two rounds each — fire". (If no enemy reaction) "3 and 4 riflemen—five yards forward double"	No. 1 rifleman shouts "Watch my tracer" and fires
Enemy fire dies down	4. Winning the fire fight	"Stop" "Section — 200 — tree — three o'clock — bushes—sniper—fire"	Controlled fire by the whole section

SUMMARY—*continued*

Situation	Section drill	Orders by section commander	Action by section
Enemy fire ceases	5. The assault	Whistle "Stop" "4 and 5 riflemen carry on"	Two riflemen firing discourages enemy reaction
Battle orders		"Left flanking — LMG move first to bank ahead on right. LMG group prepare to move. Rifle group—fire"	No. 2 of the LMG group relays orders to No. 1
Fire and movement begins			LMG group moves covered by fire of the rifle group. LMG gets into action and begins firing immediately—No. 2 hand signals section commander to move
Fire and movement continues		"Rifle group stop. Prepare to assault—move"	
The assault		"Bullets"—if necessary. "Charge"	The rifle group moves in to assault covered by the LMG
Enemy position overrun	6. Reorganization	Orders for:— Searching the position. Arcs of observation. Reference points. Checking casualties. Checking ammunition. Refilling LMG magazines.	LMG group rejoins rifle group automatically. No. 2 carries out magazine drill.

SECTION 33.—PLATOON BATTLE DRILLS

203. The platoon attack has been broken down into four basic drills; each can be taught as a separate lesson and the drills together form the logical sequence of action to enable a platoon to overcome minor opposition using fire and movement.

PLATOON BATTLE DRILL 1.—BATTLE PREPARATIONS

Signals

204. The platoon commander will arrange a whistle signals code for use when he cannot make his intentions clear by hand signal or voice. The following code is suggested:—

(*a*) Section identification: one short blast for No. 1 Section, two for No. 2 and three for No. 3. On hearing his section identification signal, the section commander concerned will look in towards the platoon commander and acknowledge.

(*b*) Executive order detailing the fire section: this signal would follow the section identification signal. The following signals may be used:—

(i) A series of short blasts (The Alarm)—"You will be fire section".

(ii) A series of long blasts—"I am going left flanking".

(iii) A series of short/long blasts—"I am going right flanking".

Formations

205. The normal formation for a platoon advancing is one section up and the battle drills are laid down to suit this formation. For:—

(*a*) Moving down a road—*see* Figure 1.

(*b*) Moving across country—*see* Figure 2.

These figures are purely diagrammatic. The point section commander must keep control of his section. When advancing along the axis of a road in country where there are thick hedgerows, he must therefore have his complete section on one side of the road or the other, not distributed as shown in Figure 1.

206. A platoon taking part in a company or bigger attack may advance to the assault with two sections up. This reduces the power of manoeuvre within the platoon but usually fits in with the higher plan of assault and fire support. In such cases, each leading section may even have its predetermined

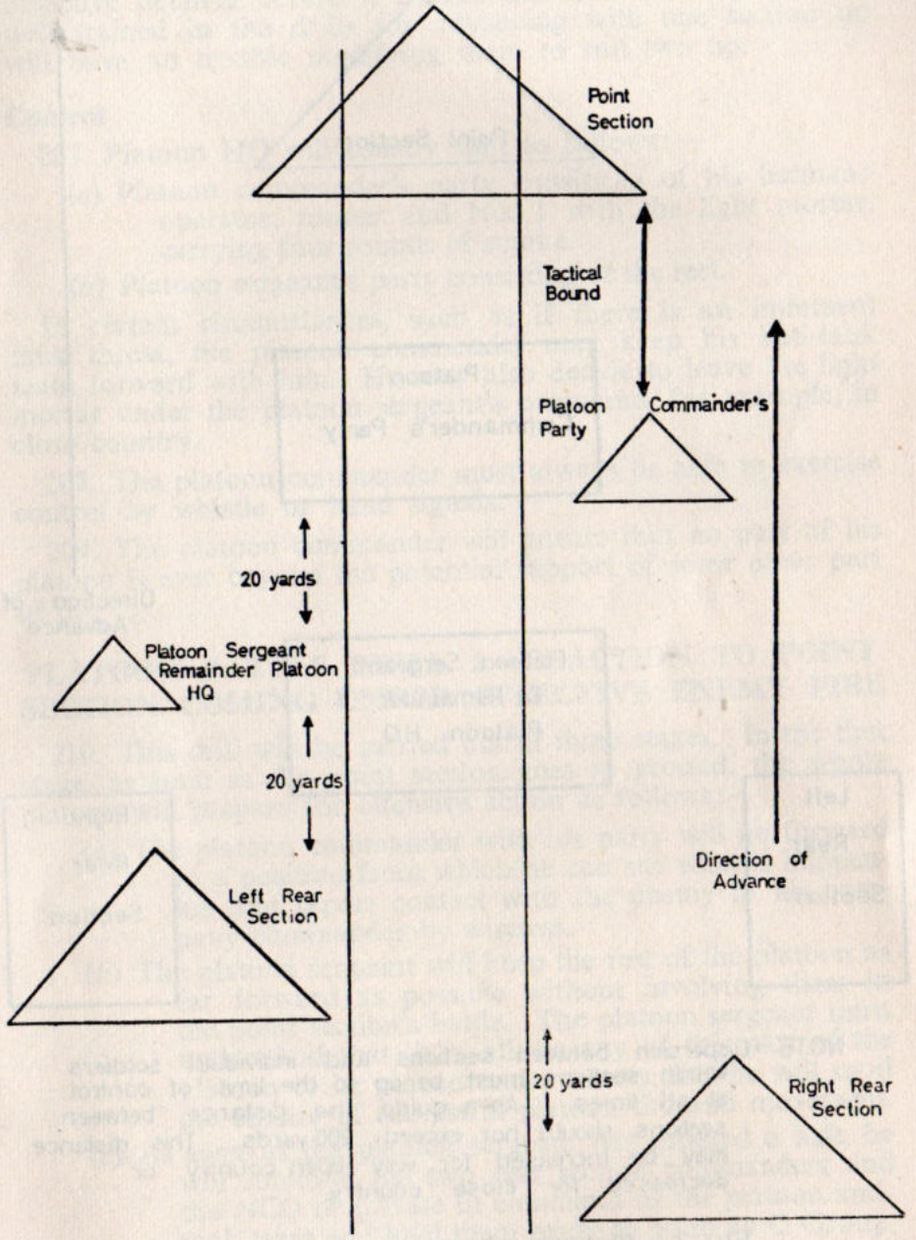
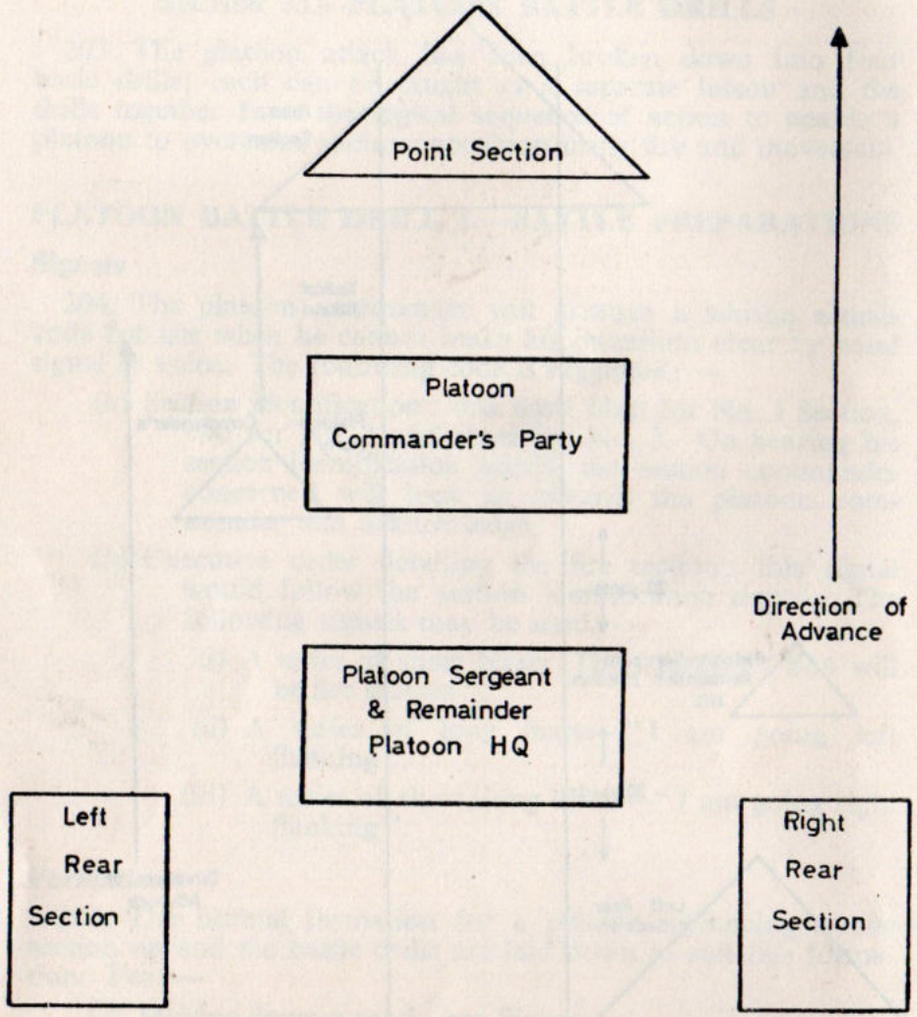


FIG 1.—Platoon advancing down a road



NOTE – Dispersion between sections and individual soldiers within sections must be up to the limit of control at all times. As a guide, the distance between sections should not exceed 200 yards. This distance may be increased for very open country or decreased for close country.

FIG 2.—Platoon advancing across country

objective detailed before it crosses the start line. A platoon well trained in the drills for advancing with one section up will have no trouble modifying them to suit two up.

Control

207. Platoon HQ will usually split as follows:—

(*a*) Platoon commander's party consisting of his batman/operator, runner and No. 1 with the light mortar, carrying four rounds of smoke.

(*b*) Platoon sergeant's party consisting of the rest.

In certain circumstances, such as if there is an imminent tank threat, the platoon commander may keep his anti-tank team forward with him. He may also decide to leave the light mortar under the platoon sergeant's command, for example, in close country.

208. The platoon commander must always be able to exercise control by whistle or hand signals.

209. The platoon commander will ensure that no part of his platoon is ever beyond the potential support of some other part of it.

PLATOON BATTLE DRILL 2.—REACTION TO POINT SECTION COMING UNDER EFFECTIVE ENEMY FIRE

210. This drill will be carried out in three stages. In the first stage, as soon as the point section goes to ground, the whole platoon will prepare for offensive action as follows:—

(*a*) The platoon commander with his party will go forward to a position from which he can see what is happening and report contact with the enemy to his company commander by wireless.

(*b*) The platoon sergeant will keep the rest of the platoon as far forward as possible without involving them in the point section's battle. The platoon sergeant must understand that if he allows any of this part of the platoon to be pinned under enemy fire, he will spoil the chance of successful platoon fire and movement.

(*c*) As soon as the platoon sergeant has ordered a halt, he will summon the two rear section commanders and the NCO or private in command of the platoon anti-tank team and hold them ready to go to an O Group. If he hears the light mortar firing, he will automatically send No. 2 mortarman to join No. 1.

211. In the second stage, as soon as the platoon commander reckons that the point section cannot overcome the enemy

using its own fire and movement, for example, if he hears an enemy LMG firing, he will make a battle appreciation and act as follows:—

(*a*) Send his runner to the platoon sergeant with a verbal message giving:—

(i) An RV for O Group.

(ii) An RV for the platoon.

(*b*) Signal the point section ordering it to act as fire section and indicating the flank from which the platoon will assault. If the point section is badly placed to act as fire section, order No. 1 on the light mortar to put down smoke to enable the point section commander to move his men to better fire positions.

(*c*) Report the situation by wireless to the company commander.

212. In the third stage:—

(*a*) As soon as the platoon commander's runner arrives, the platoon sergeant will:—

(i) Send the two rear section commanders and the anti-tank team NCO/private to the O Group RV.

(ii) Send the rest of the light mortar team to join the mortar.

(iii) Organize the move of the rest of the platoon to the platoon RV. On arrival, take up a position of all-round defence.

(*b*) Simultaneously, the platoon commander moves to the O Group RV and, as soon as the assault section commanders and the anti-tank NCO/private have assembled, he will issue his battle orders.

PLATOON BATTLE DRILL 3.—FLANKING ATTACK

213. The platoon commander will give a battle order to his O Group.

The only headings necessary are:—

(*a*) Enemy position.

(*b*) Mission.

(*c*) Left or right flanking.

(*d*) Position of the fire section if not already clear.

(*e*) Route and assault position.

(*f*) Any variation of the battle drill.

214. At the end of his order, the platoon commander with his O Group will rejoin the rest of the platoon in the platoon RV where he will brief the sergeant. Details of the various moves are shown in Figure 3.

The assault

215. (*a*) The leading section for the move to the assault position is the section which was moving on the flank which has been chosen for the assault; the left rear section therefore leads when the platoon is left flanking and the right rear section when it is right flanking. The platoon commander will not lead this move unless he doubts the ability of the section commander to get to the right place.

(*b*) In the assault position, when left flanking is ordered, the leading section forms up on the platoon commander's left and when right flanking is ordered it forms up on his right.

(*c*) In the move to the assault position, platoon HQ will move behind the leading section. In the assault, the platoon commander will be accompanied by his runner while the rest of the platoon HQ move in rear under the sergeant. If no task is given to the light mortar, it should go with platoon HQ on the flanking move.

(*d*) When moving to the assault position, if the platoon meets opposition from further to the flank, the drill is for the leading section LMG group to drop off to neutralize it. If the enemy fire is severe, the assaulting section will have to halt while the platoon sergeant is detailed to switch the light mortar to create an artificial defilade with smoke between the assaulting sections' line of advance and the new opposition.

(*e*) When moving to the assault position, if the platoon meets opposition actually in the covered approach, this must be cleared before the attack can continue. The drill is for the leading section to act as a point section advancing. If this section cannot overcome the opposition, the platoon commander will order it to act as another fire section while he assaults the new opposition with his third section.

Variations

216. Variations are:—

(*a*) Putting in a quick flank attack with one section, holding the third section in reserve.

(*b*) Stepping up the fire power of the point section with an extra LMG or even another complete section; in this case the platoon sergeant will usually be ordered to take control of the supporting fire.

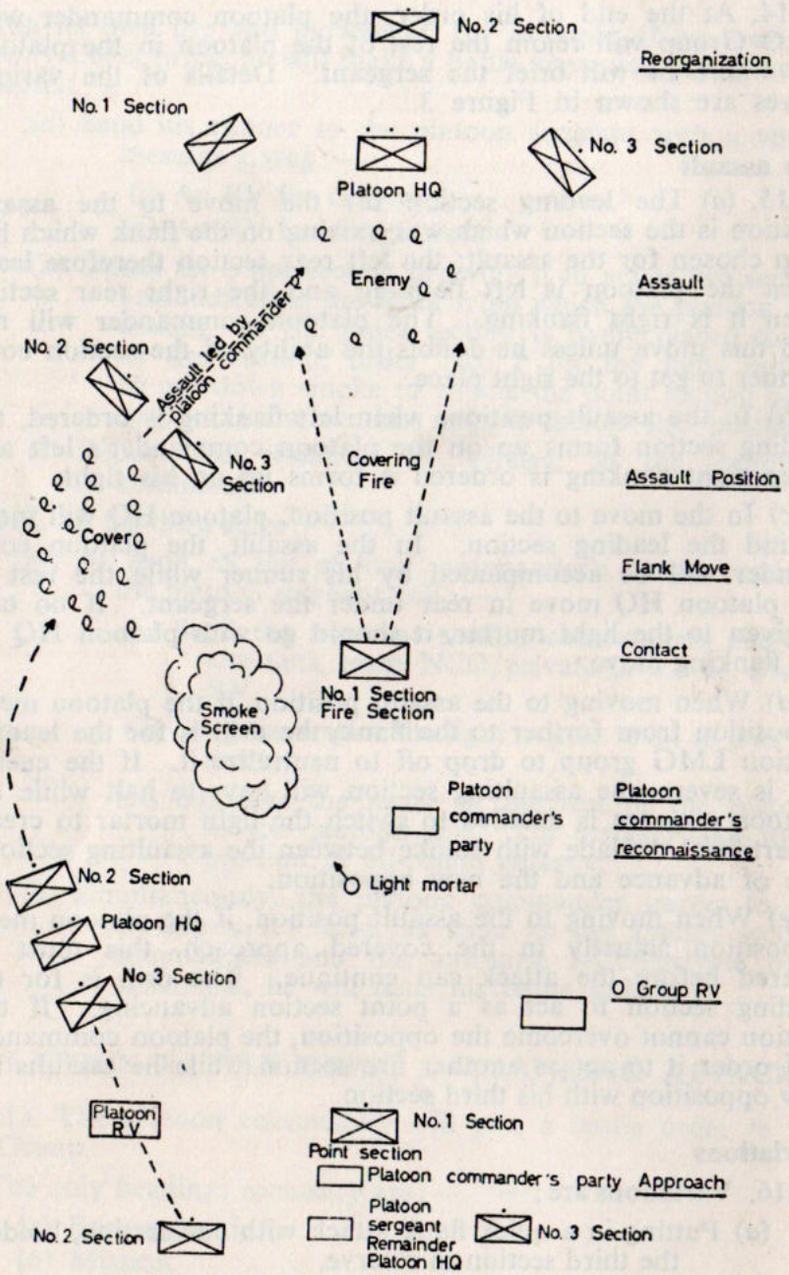


FIG 3.—Platoon left flanking attack

PLATOON BATTLE DRILL 4.—REORGANIZATION

217. Once the assault has been made; the platoon will take up a defensive position, which may be forward of the captured post, having all-round fields of fire. This reorganization will be carried out as a drill as follows:—

(*a*) The leading section in the flanking order of march will take the centre, on the original axis of advance.
(*b*) The second assault section will go straight on across the objective to the far flank.
(*c*) The fire section will take the remaining exposed flank.
(*d*) Platoon HQ will rally in the centre.
(*e*) The platoon commander will go round the position at once to check section arcs, especially the LMG arcs.
(*f*) The platoon sergeant will check casualties and ammunition, re-distributing holdings as necessary.
(*g*) The platoon commander will report by wireless to his company commander.

CHAPTER VIII

PROTECTION

"Always mystify, mislead and surprise the enemy if possible"
—Lt.-General T. J. ("Stonewall") Jackson, CSA.

SECTION 34.—GENERAL

218. Every commander is responsible for the protection of his men. By protection is meant the steps which a commander takes to safeguard his command against being surprised and to to conceal his dispositions from the enemy.

219. No unit is secure unless it is protected in all directions from which attack may come, whether from the front, the flanks, the rear or the air. Even when it is some way from the enemy with other troops in front or on the flanks, a unit is liable to be attacked. It should therefore always be ready to fight and protect itself at short notice. Furthermore, security precautions against enemy agents, saboteurs and "fifth column" must always be maintained.

220. Protection of lying-up areas on long patrols is dealt with in Chapter X, Section 59. The forms of protection considered here are:—

(*a*) Protection at rest.
(*b*) Protection on the move.
(*c*) Protection against air attack.
(*d*) Protection against gas.
(*e*) Protection against nuclear attack.

SECTION 35.—PROTECTION AT REST

Alarm posts

221. Whenever a platoon is halted for any length of time or is in a rest area or defensive position, alarm posts must be allotted. They will be sighted to meet ground attack from any direction and, if possible, be concealed from air observation. In a rest area, shell scrapes should be dug, particularly if the stay is likely to be prolonged. When nuclear weapons are being used, men must be under the best available cover. All ranks must know where their alarm posts are and practice alarms must be carried out to ensure this. Every man must carry his weapon and ammunition at all times.

Sentries

222. Sentries will always be posted for the local protection of any body of troops to give early warning of enemy movement or attack and to check the identity of visitors or of suspicious persons loitering nearby.

223. An officer or NCO will post sentries and make sure that they know and understand their orders. They will be posted to cover the most likely approaches and must be in contact with the NCO on duty.

Orders for sentries

224. The security of the force depends on the alertness of its sentries. Their orders must therefore be carefully thought out so that nothing is omitted, left to chance or liable to misunderstanding. The orders should be given clearly. A section commander will normally brief his whole section at one time. Details which a sentry should know and the standard challenging procedure are to be found in Infantry Training, Volume I, Pamphlet No. 2, "Fieldcraft". (Code No. 8890).

Challenging

225. The standard challenging procedure will always be followed. Failure to do so may result in casualties being inflicted on our own troops, particularly returning patrols. The section commander will always be alerted if anyone not expected approaches the position and, if the situation warrants, he will stand the section to; the sentry will do the challenging. The challenge will be given quickly and quietly at a range which will guarantee the infliction of casualties if necessary but not close enough for the post to be rushed. If the order to halt is not obeyed, it is repeated and if still not obeyed, fire must be opened immediately. The section commander must ensure that his whole arc remains covered and that all his men do not concentrate on one incident.

Passwords

226. The use of the password must be the last means of identification when other methods have failed. After the initial challenge "*Halt. Hands up*", the sentry will say "*Advance one*" and then "*Halt*"; when the visitor comes within about five yards the second sentry will cover him. The first sentry will then say "*Who are you?*" and try to identify the visitor without using the password. If he is still not completely satisfied, the sentry will quickly say the first half of the password.

227. The password will always be in two parts, for example:—

Challenge—*Derby*.
Countersign—*Winner*.

If the two parts have some connection, as in the example, given above, they will be easier to remember but this connection must not be so obvious that an enemy may guess the countersign.

228. Passwords are changed daily at noon.

Length of watches

229. Watches may be as short as half an hour but will not exceed two hours. The shorter watch may be used when a platoon is working or in extreme climatic conditions. The longer watch is normal in completed positions to allow a worthwhile rest between watches. When platoon sentries are found by sections in turn, sections should not change responsibility too frequently or there may be confusion over reliefs. When the section responsibility does change, the relief must be supervised by the platoon commander or platoon sergeant.

Sentries in a defensive position

230. The number of sentries normally required by a platoon occupying or preparing a defensive position is:—

(*a*) Before contact:—
- (i) By day, normally one ground/air sentry for the platoon but this is subject to local conditions and weather.
- (ii) By night, two for the platoon. Reliefs of night sentries will be staggered to ensure that one is always fresher than the other. This method also ensures that at least one sentry is always adapted to darkness.

(*b*) In contact:—
- (i) By day, one for each section.
- (ii) By night, two for each section.

231. While the position is being dug, sentries must be sited far enough away to enable them to listen unimpeded by the noise of digging but close enough to give warning easily. Sentries are required to give warning of the approach of hostile aircraft. The best way of giving the alarm in the platoon area is by whistle or, if silence is essential, by pulling on a line laid from the sentry to the main position. Roving sentries should not be used.

The section LMG by night

232. One sentry must always man the LMG within the section position. This LMG will nearly always be on a fixed line or fixed arc. If it is covering the front of another section the second sentry must watch the section's own arc. So as not to disclose its position, the LMG should not fire bursts unless the position is rushed.

Sentries in a rest area

233. Sentries should be posted to cover the most likely approaches, particularly any tracks leading into or near to the rest area. When a sentry has to go into the open, for example to examine vehicles or personnel, he must be covered by another sentry who is concealed. Listening posts or ambushes may be laid on tracks leading to the area in place of normal sentries. Also:—

(*a*) By day, sentries should be posted as far out from the force as possible to give early warning but not out of earshot nor out of sight if the country is close.

(*b*) By night, sentries may be placed well out but they must have a quick, secure, silent and certain method of contacting their force.

Alarm scheme

234. If firing begins or the alarm signal is given, every man should go to his alarm position. Thereafter there must be *no* further movement until stand down is ordered. This means that anyone moving during the period of the alarm is likely to be enemy. There will be no firing at night until the enemy is a certain target.

SECTION 36.—PROTECTION ON THE MOVE

Marching

235. When a platoon is moving in an area where the enemy's location is unknown and the ground is not completely open, scouts may be employed in front and on the flanks. They must not be allowed to mask the fire of the platoon. If speed is essential, scouts should not be used in front.

236. The aim of a scout is to see without being seen. He should use his rifle only in self-defence or in defence of other men.

237. Scouts work in pairs. They move forward from one objective to another by bounds. When the objective for the next bound has been selected, the leading scout chooses his route to it and moves forward as rapidly as possible while the other remains in observation. When the first scout reaches his objective, he signals the other to come forward. The process is then repeated. The reasons for this procedure are:—

(*a*) The second scout can cover the advance of the leading scout with fire and help him withdraw if surprised by the enemy.

(*b*) If the leading scout gets into difficulties, the other can call for assistance.

238. Objectives selected for bounds should give a good view ahead and be suitable for signalling back. The distance ahead that scouts move depends on the nature of the country. A short distance in open country is useless unless they can see more than the rest of the platoon. The platoon commander must maintain strict control over the movement of his scouts so that he can halt them if necessary in order to close up before sending them ahead again.

239. If contact with the enemy is imminent or the scouts give warning of his presence, the platoon should deploy into normal battle formation with one section up as point section.

In MT along roads

240. Bad MT movement discipline may cause delay and congestion in a whole column making it vulnerable to air attack and shelling. Vehicles will normally move in groups of about four or five according to the size of sub-units. They should either be of the same type or belong to the same sub-unit. Each group should be commanded by an officer with a commander detailed in each vehicle. Groups should travel at least a mile apart if possible to make them a less worth-while target to enemy aircraft. The convoy system will only be used when we have complete air superiority.

241. The rules of MT march discipline are:—

(*a*) *The vehicle commander* is the senior rank in the vehicle. He is detailed before moving off and is responsible for the conduct of the driver and other passengers. He must travel in a position from which he can see out of the vehicle in every direction including the rear. If he cannot see out of the rear, he must detail someone in the back of the vehicle to do this. The

vehicle commander must follow the route on a map. If the vehicle in front is automatically followed, part of the group may get lost. At unexpected halts, he must get out and go forward to find out and, if possible, rectify the cause of the delay. If all vehicle commanders do this, the group will not be delayed behind one broken down vehicle.

(*b*) *The convoy density* is the interval which must be kept between vehicles. This will be laid down for any move in convoy to avoid vehicle bunching and also to prevent the column taking up too much road space.

(*c*) *Maximum speeds.* The running speed laid down will be as fast as is thought safe and practicable. When in convoy, this will be the speed of the slowest vehicle. There will also be a maximum speed to enable delayed vehicles to make up ground. This will usually not be more than about five mph greater than the running speed and must not be exceeded.

(*d*) *Double banking and overtaking* must not be allowed except on the orders of the military police or of officers controlling traffic. Individual vehicles which have dropped behind must wait for the column to halt before regaining their positions in the convoy.

(*e*) *Halts.* Times and duration of halts will be laid down for the move. Whenever possible, vehicles should move from hide to hide. These hides, such as woods, will be pre-selected from maps, air photographs or knowledge of the route. Ideally they should provide cover off the road for halted vehicles. They do not have to be any special distance apart. If hides are not available, vehicles should park clear of the road whenever possible and be camouflaged. Every precaution must be taken at halts to conceal vehicles from air observation. Sentries must be posted and traffic control men detailed where necessary.

(*f*) *Breakdowns.* Vehicles which break down must be parked on the side of the road and display a signal. Usually a yellow flag, to show other vehicles the cause of delay. If the breakdown is likely to be only temporary, a sentry must be posted on the opposite side of the road to act as a traffic policeman and wave on the rest of the convoy. If the breakdown is permanent and the vehicle blocks the road, it must be pushed clear even at the risk of further damage to it.

SECTION 37.—ROAD BLOCKS

242. Whenever a platoon is located in an area which is entered by roads or tracks along which enemy tanks and vehicles might approach, a road block should be established. This may consist of anti-tank mines but when these are not available, a road block must be improvised from such materials as felled trees, rubble or destroyed vehicles.

243. A road block should be sited so that it is difficult for enemy drivers:—

(*a*) To see the obstacle until they are close to it. This is done by siting it round a corner or over the crest of a hill.
(*b*) To turn their vehicle round.
(*c*) To drive off the road and move across country.

Suitable sites are in defiles where the road passes between woods, large ditches, thick hedges, banks or buildings.

244. It may often be necessary to organize road blocks so that friendly vehicles can be allowed to pass through them. A block of this kind consists of two overlapping portions with a movable barrier such as a concertina wire knife rest in between.

245. A road block must always be covered by fire. Normally this should be provided by one section with the platoon anti-tank weapon. The RL and at least one LMG should be sited to cover the road on the enemy side of the block. The rest of the section should be positioned to protect it and to engage enemy vehicles with fire from different angles.

246. Except in forward areas or when in ambush, a sentry should normally be posted at the block itself to identify vehicles as hostile or friendly and in the latter case to act as traffic policeman.

247. When mines are used in the construction of a road block, another block or prominent notices must be set up on our side to prevent friendly vehicles from running over them.

SECTION 38.—PROTECTION AGAINST AIR ATTACK

General

248. Speed is an outstanding characteristic of air attacks. Only a few seconds may elapse between the first appearance of the aircraft and the end of the attack. The effectiveness of the defence will therefore depend on:—

(*a*) The speed at which warning of the attack can be given.
(*b*) The time taken after the alarm is given to issue and execute orders for movement or fire.
(*c*) The skill, steadiness and fire discipline of the troops.

249. Infantry protect themselves against enemy air attack by:—

(*a*) Dispersion.
(*b*) Concealment.
(*c*) Prompt aggressive action.

Concealment and formations

250. On the line of march, concealment may be difficult by day but casualties can be minimized by marching dispersed on either side of the road.

251. When deployed, it is best to adopt irregular formations in such small groups that the target, if observed, does not seem worth attacking. Troops should keep in the shadow when possible. In the open they should lie down, keep still and not look up.

252. When occupying a defensive position, the careful siting of posts and the use of available cover or scrim netting can achieve concealment from aircraft but not from the modern camera. The careful study of air photographs will show all newly turned soil and tracks even if made by only one man. This does not mean that the need for concealment is over, as it is still most important to conceal our positions from ground and visual air observation. Troops must use old tracks whenever possible. New tracks, if made, should be designed to fit in with existing tracks. The enemy may well find it difficult to tell if a position is actually occupied or not.

253. Enemy aircraft will try to achieve surprise by flying low and concealing their approach. The speed of low-flying aircraft makes them difficult to identify, but as enemy aircraft and their habits become known, troops must become proficient in rapid aircraft recognition. Effective observation is therefore most important. Air sentries should be posted in the most suitable positions to see the approach of enemy aircraft and yet be able to give prompt warning. They must listen as well as watch. Their duties are tiring and a strain on the eyes so frequent reliefs are necessary. Sentries must carry a whistle or other efficient warning signal.

Action when attacked

254. Small arms fire will only be opened by LMG teams detailed for this role. All other troops, who should already be dispersed, must take cover immediately, preferably below ground, and remain so until the "All clear" is given.

SECTION 39.—PROTECTION AGAINST GAS ATTACK

General

255. Every individual is personally responsible for his own protection against gas. His personal anti-gas equipment, which will be issued if there is any possibility of gas warfare, is adequate for the purpose provided that:—

(*a*) He can recognize the presence of gas.
(*b*) He knows how to use his equipment.

Weapons

256. Gas attacks can be made by:—

(*a*) Aircraft bombs.
(*b*) Aircraft spray.
(*c*) Artillery shells.
(*d*) Mortar bombs.
(*e*) Rockets.
(*f*) Chemical mines.

Recognition

257. A characteristic of the gas weapon is that there may not be any indications in terms of sight, sound or smell that it is being used. It can then only be recognized by its effects on individuals. The manual of Gas Training, 1951 (Code No. 8511) contains details of all types of war gases, their charateristics and special precautions to be taken, including the use of special equipment which will be issued should gas warfare be likely to take place.

Respirators

258. When respirators are issued, the platoon commander should ensure that all troops have a correctly fitting facepiece.

Training

259. Troops must be taught to understand:—

(*a*) How to use the equipment issued to them.
(*b*) The safety rule for the recognition of gases.
(*c*) Their individual responsibility for protection.
(*d*) The duties of a sentry in respect of gas.

Gas alarms

260. There are two alarms which must be acted upon at once:—

(*a*) General alarm—passed through normal channels of command when large areas are involved.
(*b*) Local alarm—given in a unit or sub-unit when its own sentries detect the presence of gas.

Sentries

261. Normal sentries will have gas duties in addition to their other responsibilities where the risk of gas warfare exists. Their primary gas duty is to be able to recognize when gas is present and then to give the appropriate alarm. The sentry will regularly inspect his detector papers. Once gas warfare has started, the sentry should wear his eyeshields and cape or poncho and carry his respirator at the alert. Gas Training, 1951, lists the detailed duties of gas sentries.

SECTION 40.—PROTECTION AGAINST NUCLEAR ATTACK

General

262. A nuclear missile can be delivered by:—

(*a*) A shell fired from a gun.
(*b*) A bomb dropped from an aircraft.
(*c*) A free-flight rocket.
(*d*) A guided weapon.

263. The power of the missile is measured in terms of its equivalent in high explosive. Thus a 5 Kiloton (KT) weapon has an explosive power equal to 5,000 tons of TNT.

Effects of a nuclear explosion

264. There are four effects which are:—

(*a*) *Dazzle.* When the missile first explodes, there is a blinding flash many times brighter than the sun. This can cause temporary or even permanent blindness to persons who happen to be looking in the direction of the explosion.

(*b*) *Heat.* This effect immediately follows the flash. It can cause severe burns to persons exposed in the open and may give rise to secondary fires.

(*c*) *Blast.* This takes the form of a severe pressure wave like a wind many times greater than hurricane force and may last for several seconds. The pressure wave can hurl heavy objects about so may cause casualties from flying debris in addition to injury to those exposed to its force.

(*d*) *Radiation.* This is of two kinds, immediate and residual.

(i) *Immediate radiation* is given off for up to a quarter of a minute from the start of the explosion. It travels in straight lines at the speed of light. Its harmful effects diminish with distance and are further reduced on passing through solid matter, for example, earth banks.

(ii) *Residual radiation* will occur when a missile is exploded on or near the ground. It is radiation given off by contaminated earth, water or dust particles drawn up by the explosion and later falling to the ground. This contaminated dust is usually dispersed by the wind and when it drops to the ground again is known as fall-out. This fall-out gives rise to residual radiation in the area where it lands. There will probably also be neutron induced radiation in the immediate vicinity of Ground Zero, whether the burst is high or low.

Protective measures

265. (*a*) *Troops in the open.* Immediately on seeing the flash, troops must shut their eyes and fall flat on the ground, hands under the chest and faces pressed to the earth. Men should lie like this for at least fifteen seconds before getting up. This drill will give a man in the open the best chance of protection against all the effects of the explosion. The reaction on seeing the flash must be instantaneous. There is no time to dart for cover.

(*b*) *Troops in a defensive position.* Shelters must be available for all troops in a completed position to give good protection at reasonable ranges from all effects of a nuclear explosion. In cases where there has not be enough time to build shelters, a thermal shield shield can be improvised from a ground sheet or other material. If placed over the fire trench, this gives some protection from the flash and heat effects of the missile. The earth walls of the trench give some protection against blast and radiation. The thermal shield is a great casualty saver.

(*c*) *During a nuclear alert.* All troops not engaged on other tasks such as sentries or patrols should remain under cover, preferably below ground, or in their APCs. Thus should an explosion occur in the area, the minimum number of men will be exposed to its full effects.

(*d*) *On the move.* When passing through a contaminated area, respirators will be worn if conditions are dusty or a possibility of dust is anticipated. Monitoring teams using simple radiac instruments will test the radiation level. At present, responsibility for providing and training these teams lies within the company.

(*e*) For fuller details, *see* "Precautions against Nuclear Attack, 1957" (War Office Code No. 9466).

CHAPTER IX

DEFENCE

SECTION 41.—DEFINITIONS

Deliberate defence

266. A deliberate defensive position is one selected and prepared when out of contact with the enemy. There will be time for detailed reconnaissance and planning on ground of our own choosing and for digging and concealing positions without enemy ground interference.

Hasty defence

267. In the worst case, defence will be built up under threat from or in the face of the enemy. It may not be possible to choose the best ground and such a defence may be protracted, in which case it might be necessary to re-plan and re-site the position on more suitable ground. Use is sometimes made of newly-won enemy positions which were originally sited to face in the opposite direction.

Defended area

268. An area of operational responsibility containing a group of localities organized in depth, such as a battalion area.

Defended locality

269. An area of ground organized for defence by a company or platoon. The general line of foremost localities will be known as the forward defended localities (FDLs).

Defended post

270. A position held by a small sub-unit such as an infantry section. In non-nuclear conditions, posts are grouped together in mutual support to form a defended locality.

Mutual support

271. The defended posts within a defended locality are said to be in mutual support when they are sited so that an enemy assaulting any one of them can be engaged directly with small arms fire from at least one other.

Forward edge of the battle area (FEBA)

272. The general line of our troops, excluding patrols, nearest to the enemy.

Defensive fire (DF)

273. Pre-arranged fire which can be brought down quickly in depth on the front of actual or suspected enemy movement. It will include:—

(*a*) Tasks close in to defended localities to break up the enemy attack.

(*b*) Tasks in depth to disorganize enemy preparations just before and during his attack.

Defensive fire tasks (SOS)

274. DF (SOS) tasks cover the most vulnerable approaches, usually close in to the position. DF (SOS) tasks can only be allotted to guns in direct support. These guns will remain loaded and laid on their DF (SOS) task when not otherwise engaged.

SECTION 41.—GENERAL PRINCIPLES

275. The primary aim of infantry in defence is to defeat the enemy's attack by fire.

276. In front of the FDLs, fire is provided by the artillery, armour and all the battalion weapons. Behind the FDLs, fire, especially from the battalion weapons, is organized in depth to stop any of the enemy who may succeed in penetrating the position.

277. The defended position will be strengthened by digging, wiring and the use of anti-tank obstacles and mines. The type of defences which can be constructed depends on the time available for organizing and occupying the position. Defences vary between those which must be occupied hastily, when all that can be done is probably some improvement of existing natural cover or captured enemy positions, to those constructed for a highly organized deliberate defence.

278. Much time is always spent in defence in any war. Infantry may be required to stand up to massed enemy infantry attacks supported by aircraft, tanks and artillery firing both HE concentrations and nuclear missiles. Only the most resolute and efficient defence will succeed in this task. The general principles of the defence which have been evolved are:—

(*a*) Depth.
(*b*) Mutual support.
(*c*) Concealment.
(*d*) All round defence.
(*e*) Reliable communications.

Depth

279. Depth is needed to:—

(*a*) Stop the enemy gaining information about our main defensive position when preparing his attack.

(*b*) Surprise the attacker.

(*c*) Slow down the momentum of the enemy's attack.

(*d*) Localize any penetrations of our localities so that they can be counter-attacked and eliminated.

Mutual support

280. Each sub-unit in the battalion must be able to fire on the front, flanks or rear of its neighbouring sub-units. In this way, sub-units protect each other from isolation and defeat in detail.

Concealment

281. (*a*) *From the air.* The overall plan for concealment from air observation and the camera will be laid down by formation HQ and will include such matters as track discipline and dummy positions. Against the modern camera, it is unlikely that we can do more than hide some of our positions. Not every enemy aircraft will carry a camera, however, so concealment from the air will still be very important and we must always aim to deceive the enemy and conceal what is in our positions.

(*b*) *From the ground.* It is more important than ever to hide our dispositions from enemy ground observation. Once a post has been located, it is liable to be neutralized before the enemy's main attack is launched; it therefore makes no useful contribution to the defence and may provide a valuable gap through which the enemy's attack can be directed. A defended post concealed from ground observation may surprise the enemy by bringing fire to bear on his attacking troops from an unexpected direction.

(*c*) Concealment should not be sacrificed for fields of fire: 100 yards is the minimum desirable field of fire acceptable; 300 yards is adequate for riflemen for most purposes but a longer field of fire is desirable for light machine guns.

All-round defence

282. Battalions are often responsible for long frontages. In such cases, it is not possible to hold ground along the whole front as this would result in loss of depth. Gaps are acceptable and will be dominated by fire and active patrolling. Sub-units have a primary direction on which they will concentrate their attention and fire effort but they must be ready always to meet an attack from any direction. Some fields of fire may be short, owing to the lie of the ground or the adoption of reverse slope

positions. Dead ground close in to the flank or rear of a sub-unit must be covered by fire from another sub-unit. Consequently, at platoon or company level all-round defence is most desirable but may be impossible, whereas at battalion level all-round defence is essential.

Reliable communications

283. It is impossible to fight a battle effectively without reliable communications. Wireless is the main method and all junior leaders must be trained to use it. Line is usually laid in defence but it is not always a reliable method of obtaining additional fire suport owing to frequent breakages.

SECTION 43.—RECONNAISSANCE

Preparations

284. Before he goes on his reconnaissance, the platoon commander should arrange to be accompanied by an escort for his personal protection and a runner through whom he can communicate with his platoon.

Fields of fire

285. In deliberate defence, the platoon commander will site each trench personally. To do this he must lie down in each position with his chin close to the ground to ensure that the firer can carry out the task which he intends to give him. The fire trench must have a good, clear field of fire usually not less than 100 yards: it may be shorter in some reverse slope positions, while in very close country as little as 50 yards may have to be accepted. If the field of fire is extensive, the platoon commander may select a mark on the ground beyond which he will not allow fire to be opened. The infantry soldier should be a skilled man-at-arms; he must be taught to kill the enemy with his LMG at ranges up to 400 yards and with the rifle up to 300 yards.

Observation

286. Although very long fields of fire are not essential, platoon and section commanders should, if possible, have observation over longer ranges. This prevents them being surprised and gives time to prepare to meet an attack and, in the case of the platoon commander, to call for mortar and artillery support.

Frontage

287. The size of locality which can be physically held by a platoon is limited to that over which the platoon commander

can maintain voice control and by the need for mutual support between sections. The platoon commander must not forget that ground should be covered by fire, not men; in open country, therefore, larger frontages can be covered than in close country or built-up areas.

Siting

288. Where possible, the platoon commander should first look at his position from the enemy's point of view. He will then be able to deduce his probable approaches and can site his own weapons accordingly.

289. The siting of the LMGs is the most important part of the reconnaissance as their tasks provide the framework around which the defence of the platoon locality is built. They should therefore be sited first and the rest of each section fitted in accordingly. Tasks should be designed to cover likely approaches, the front of obstacles and gaps where casualties may be inflicted. It should be borne in mind that LMGs can fire in darkness, fog and smoke when laid on fixed lines or arcs.

290. Although the platoon will be sited to repel attacks mainly from one direction, some part of it must observe and be prepared to fight in any direction, since it must hold its position against enemy who may have broken through the FDLs elsewhere and attack it from the flanks or rear. Trenches will be close enough for the section commander's orders to be heard during the battle.

291. Reverse slopes are a great aid to concealment from enemy ground observation and to surprise. The field of fire must, however, be adequate and the ground alone will dictate whether a forward or reverse slope should be occupied.

292. When the platoon commander sites his fire and shelter trenches, he should remember that they may well be occupied for some time and should therefore be capable of improvement and development, for example by communication trenches and section shelters.

293. Liaison is from left to right so the platoon commander must visit the platoon commander on his right and expect a visit from the platoon commander on his left to co-ordinate details.

294. The platoon commander must also settle details concerning the siting and protection of supporting weapons or tanks to be located in his area. This must be done before the platoon begins to dig in, otherwise much time and labour will be wasted. During his reconnaissance, the platoon commander should site a latrine within 20-30 yards of the platoon locality.

SECTION 44.—THE FIRE PLAN

DF

295. To help the platoon hold its position, certain DF tasks for artillery, 3-inch mortars and MMGs will be planned. A platoon commander is not usually authorized to call for DF tasks but he must always know where such tasks are on the map and *on the ground*. If he wants a task fired, he should send back quick and accurate information to company HQ stating:—

(*a*) Enemy strength.
(*b*) Enemy location: a grid reference or its relation to a DF task.
(*c*) Direction in which the enemy is moving.
(*d*) Time seen.

296. The platoon must be organized to produce this information by day and night. By night, it will come mainly from listening patrols out in front of the position. Sub-unit commanders are responsible for passing this information back: they should remember that there may well be some minutes delay before DF is brought down and speed is therefore essential.

Anti-tank defence

297. The company commander in his orders details the arc for the platoon anti-tank weapon; a tank or a MOBAT may also be sited in the platoon locality. The platoon commander is not responsible for siting these supporting weapons but he will liaise with the detachment commanders concerned and be ready to:—

(*a*) Provide protection.
(*b*) Help in preparing positions.
(*c*) Give administrative assistance if required.

SECTION 45.—OBSTACLES

298. Natural obstacles such as deep waterways are always the most economical and generally the most effective. Others such as ditches, sunken lanes and thick hedges can be improved and strengthened with barbed wire and mines. Gaps between obstacles can be filled with anti-personnel or mixed minefields. No obstacle is really effective unless it is covered by fire as the enemy can simply remove, cross or gap it unhindered.

Mines

299. Well sited and carefully concealed minefields covered by fire are an effective obstacle. The platoon may be called upon to lay minefields. Details are given in Field Engineering and Mine Warfare Pamphlet No. 5 (Minelaying Drills).

Wire obstacles

300. Wiring is a quick way of providing an obstacle to enemy infantry or improving an existing one; a little is better than none at all. The object of wiring is to slow down the enemy's advance to give a better chance of killing him with fire. Wire must be sited so as to check the enemy outside grenade throwing range of the platoon positions. Wire not covered by fire is useless. Wire should be sited, as far as possible, to help achieve surprise. For this reason, it should be well hidden in such places as sunken lanes, hedgerows and long grass.

301. Booby traps must not be sited within wire obstacles except on specific orders from the battalion commander. They must then be carefully recorded.

302. The basic types of wire obstacles are catwire fences and low-wire entanglements. The platoon must be well trained in constructing both. Details of construction are given in Field Engineering and Mine Warfare Pamphlet No. 2 (Code No. 8666).

Trip flares

303. Trip flares are used in defence to give early warning of enemy approach. They are usually sited along wire obstacles, minefields, hedgerows running towards the position and in gaps in the wire and lanes in the minefields. They must be covered by fire. The flares burn brightly for about a minute and clearly silhouette men within 25 yards and up to 50 yards if they are between the flare and the defenders.

SECTION 46.—DIGGING A DEFENSIVE POSITION

Siting plan

304. Commanders at all levels always think two levels down when siting a defensive position. A divisional commander tries to visualize each of his battalions on the ground; a battalion commander looks for platoon localities; the platoon commander sites each weapon slit. He must make a complete plan on paper showing the layout of his platoon for a protracted defence before he allows digging to begin. The paper layout must include projected communication trenches. This will facilitate linking up the trench system as the position develops.

Platoon HQ

305. The platoon sergeant is responsible for the detailed lay-out of platoon HQ once its position on the ground has been

pointed out to him by the platoon commander. Platoon HQ usually consists of two four-man trenches unless the rocket launcher has been allocated to one of the sections or another platoon. The platoon commander occupies a four-man trench with his batman/operator and Nos. 1 and 2 of the light mortar. The platoon wireless set must be given protection below ground level using the ground conversion kit; the aerial must not be screened from company HQ.

Defence stores

306. Platoon commanders are not likely to get a complete issue of defence stores. They must make the most of anything they do get and take a pride in being able to improvise with any suitable local material. All stores allotted to and otherwise obtained by the platoon should be centralized in a platoon dump. This dump will be sited as close to the platoon position as the track plan and cover from ground and air observation allow. Camouflage netting will be put over it if necessary. The platoon sergeant should be in charge of this dump. He should divide the platoon's holdings of defence stores into section packets. Section commanders, in turn, must make the most of what they get and realize that the strength of their positions will depend primarily on improvisation of local material.

Earthworks

307. A section at battle strength occupies two four-man slits. Where numbers vary or ground dictates, a combination of two-man and four-man slits may be dug. Three-man slits are uneconomical to dig and should be avoided if possible. Engineer diagrams such as those given in Field Engineering and Mine Warfare, Pamphlet No. 2 (Code No. 8666), are intended as a guide and should not be slavishly followed if they do not exactly fit the situation. Drainage is always a problem but sumps or channels can be dug according to the slope of the ground. Shelter trenches must not run downhill.

308. Camouflage nets and replaced turf will help to hide diggings and temporary spoil from the air. Positions must also be concealed from enemy ground observation because enemy tanks will systematically knock out every post they have located before an attack. The construction of concealed defences is a skilful business which every infantryman must master and a good deal of practice is needed in training. Sub-unit commanders must ensure that the tops of fire trenches and the covered roofs of shelters blend with the surface of the ground. All shelter trenches must have overhead protection.

Sanitation

309. The platoon shallow trench latrine should be dug as soon as possible after work begins. Shallow trench latrines must be filled in daily. There should also be at least a shell scrape nearby to protect anyone caught in the open by enemy fire. On a forward slope, latrines may only be usable by night. Each section position must then include a latrine recess. Until this is available, it may be necessary to keep tins in fire trenches in case of need. Section refuse pits should also be dug: they should be about two by two by two feet and must be concealed.

Platoon tasks

310. The various tasks to be carried out by the platoon must be fairly allotted between platoon HQ and the sections. These tasks may include:—

(*a*) Sentries.
(*b*) Patrols.
(*c*) Digging.
(*d*) Wiring.
(*e*) Mining.
(*f*) Setting trip flares.
(*g*) Helping supporting detachments in the platoon locality.
(*h*) Battalion or company tasks: RAP and OPs.
(*j*) Section commanders range cards.

Alarm scheme

311. While the position is being dug, there must be an alarm scheme; this must be rehearsed. Troops will take up positions in or near their own weapon slits, according to progress. Men working away from section areas must know what to do if there is an alarm.

Personal equipment

312. During digging, personal equipment should be disposed as follows:—

(*a*) Items needed for fighting if there is an alarm, such as weapon, pouches and steel helmet, must be put in front of or beside the pit and taken with the man whenever he leaves the section locality. In reserve battalions, however, platoons may be given local orders that only arms need be carried.

(*b*) Other items of personal equipment must be concealed in a place where they can easily be found in the dark and where they will not be covered by spoil.

Wiring parties

313. Wiring parties, which often work near the enemy, must take the following precautions:—

(*a*) They must have local protection.
(*b*) They must work quietly.
(*c*) As few men as possible should work on the enemy side of the fence.
(*d*) Arms, pouches and respirators, if issued, should be at hand for immediate use.
(*e*) Men not working must be disposed so as to give added protection to the wiring party.

Duties of section commanders

314. As soon as the troops arrive on the position and before they begin to dig, the section commander must show them their dispositions and fire tasks; this ensures that they know how to deal with any immediate enemy attack. When preparing a position while in contact with the enemy, each man must have some form of cover behind which he can fire as soon as his weapon has been sited.

315. The section commander is responsible for ensuring that:—

(*a*) Section weapons are so placed that each man can fire on the ground allotted to him. The section commander must site each individual position with his eye close to the ground.
(*b*) Precautions are taken to prevent his section being surrised by the enemy.
(*c*) Track discipline is strictly observed by his section.
(*d*) His section is properly dug in.
(*e*) His section is effectively concealed from enemy ground observation.
(*f*) A proper routine is observed.
(*g*) A range card is made. The indication of targets is usually the hardest part of any fire order. The section commander must ensure that every man in his section knows the ground around him, the main reference points noted in his range card, and the ranges to them.

Priority of work

316. The sequence of work will naturally vary according to the situation. The following table, therefore, should only be taken as a guide:

Stage (*a*)	Task (*b*)	Stores (*c*)
I—Digging-	(i) Decide on the type of fire position. (ii) Site and mark out each fire trench in relation to the weapon task. (iii) Plan in advance the position of trench shelters and communication trenches. (iv) Decide on concealment plan including tracks, conserving turf and topsoil, and hiding spoil until required for headcover. (v) Clear immediate fields of fire. (vi) Dig fire trenches to a depth of three feet. (vii) Clear full fields of fire. (viii) Complete fire trenches to four feet six inches depth or three feet nine inches with a nine inch parapet. (ix) Camouflage trenches.	Camouflage nets if available
II—First improvements	(x) Revet if necessary.	Sandbags, pickets, groundsheets
	(xi) If no shelter material is available dig slit trenches and roof,	Sandbags, pickets
	or	
	if shelter material can be improvised, dig trenches of full shelter width with supported overhead cover.	Timber, sandbags, pickets, corrugated iron
	(xii) Camouflage shelters. (xiii) If rain is expected, dig catchwater drains above positions. (xiv) Dig drainage sumps and slope floors.	
	(xv) Make ammunition recesses in fire trenches.	Odd boxes.
	(xvi) Begin crawl trenches to join up fire bays as necessary.	
III—Further development	(xvii) Widen fire trenches and revet.	Corrugated iron or brushwood, pickets and wire
	(xviii) Continue and deepen crawl trench.	
	(xix) Improve drainage and flooring if necessary.	Duckboards or planks and small trestles

Stage (*a*)	Task (*b*)	Stores (*c*)
	(xx) Construct sentry embrasures, if necessary, and camouflage.	Half-round embrasures or culvert sections, sandbags and pickets.
	(xxi) Provide fire bays with overhead cover after completing the necessary modifications.	Sandbags, pickets, three- or four-inch round timber, wire, nails, ammunition boxes and timber loopholes if available.

SECTION 47.—ORDERS AND BRIEFING

317. When time allows, the platoon commander's order for the occupation of a defensive position should be given under the headings shown in the following paragraphs.

Situation

318. (*a*) *Enemy*: where he is, when an attack is expected and from which direction.

(*b*) *Friendly forces*:—

(i) The positions of neighbouring localities and who occupies them.

(ii) The positions and tasks of supporting anti-tank guns and tanks.

(iii) Mortar, MMG and artillery DF and DF (SOS) tasks.

(iv) Whether any troops are out in front to cover the occupation of the position and give warning of enemy approach.

(v) Patrols.

Mission

319. "No. 2 Platoon will hold . . ."

Execution

320. (*a*) *General.* "The platoon will hold the locality with two sections up, Left No. 1 Section, Right No. 2, in depth, No. 3".

(*b*) *No. 1 Section.* Area and arc of responsibility.

(*c*) *No. 2 Section.*
(*d*) *No. 3 Section.*
(*e*) *Light Mortar.*
(*f*) *Rocket Launcher.*
(*g*) *Co-ordinating instructions*:—
(i) Orders for opening fire.
(ii) Type and number of weapon pits to be dug.
(iii) Track plan.
(iv) Concealment.
(v) Priority of work.
(vi) Time by which the position is to be ready
(vii) Sentries.
(viii) Details of alarm scheme.
(ix) Patrols.
(x) Boundaries.

Administration and logistics

321. (*a*) Dress for work.
(*b*) Allocation of stores.
(*c*) Ammunition replenishment.
(*d*) Feeding arrangements.
(*e*) Latrine and refuse.
(*f*) Medical.
(*g*) Inspections.

Command and Signal

322. (*a*) Location of platoon and company HQ.
(*b*) Runner routes.
(*c*) Wireless and line.
(*d*) Password.

"Any questions?"

Briefing

323. As well as giving orders to section commanders, the platoon commander should, if possible, brief the whole platoon. This briefing should include:—

(*a*) A general outline of the defensive plan.

(*b*) Plans for counter attack.

(*c*) The policy governing the defence and the reasons for that policy. The need for aggressive defence should be stressed and men should be told the range and targets at which they should open fire by day and by night.

SECTION 48.—CONDUCT OF THE DEFENSIVE BATTLE

Morale

324. Living underground for long periods in defence is a severe test of morale. Under these conditions, high morale depends on:—

(*a*) *A sound defensive plan*: every man must understand the plan and the part he has to play.

(*b*) *Aggressive action*: every pair of eyes in the platoon is a potential OP; by day information must be passed back quickly so that the supporting arms can hit the enemy as soon as he shows himself; by night, the ground forward of the FDLs must be dominated by patrols, listening and watching, ready to call for fire to hit the enemy as soon as he appears.

(*c*) *Regular information.*

(*d*) *Good discipline*: this is the result of good leadership. Well disciplined troops stand and fight under the worst conditions; undisciplined troops do not.

(*e*) *Good administration*: the platoon commander should carry out routine tours of inspection to check personal cleanliness, latrines and refuse pits.

(*f*) *Reliable communications*: as important to the infantry man as his weapons.

Communications

325. The four means are wireless, line, light signals and runner, but during the battle, only wireless is reliable. Gun-fire and tanks cut the lines; light signals are easily missed or misunderstood, runners may become casualties. The wireless link to the company commander is so important for the conduct of the defence that, in quiet periods, line should be used to save batteries. Within the platoon, the battle is controlled by the platoon commander by voice and by lengths of wire or cable linked between trenches. A simple code of tugs must be worked out for this by the platoon commander.

Conduct when attacked

326. Troops in prepared localities must understand clearly that they have to stand fast and fight it out where they are. There must be no thought of withdrawal or looking over the shoulder. The only reasons which justify troops leaving their positions during an attack are:—

(*a*) To carry out an immediate counter-attack.
(*b*) To fight off attack from an unexpected quarter.

327. As soon as the enemy is seen forming up or advancing to attack, information must be wirelessed back to the company commander who will then call for DF from supporting artillery and other weapons. Within the platoon itself, fire must be controlled to be effective. Platoon and section commanders must therefore ensure that good fire discipline is observed. This is particularly important since the introduction of self-loading rifles.

328. At night, the control of light is usually in the hands of the company commander because one flare could give the whole position away. At times, especially during a battle, platoon commanders may be allowed to fire illuminants at their own discretion.

329. An enemy whose attack has been halted is in a most unfavourable situation. This is the climax of the defensive battle when the enemy must be attacked and driven back.

SECTION 49.—ROUTINE IN THE LINE

Information

330. Between battles, the constant requirement is to obtain information and at the same time deny information to the enemy.

The usual ways of doing this are:—

(*a*) OPs: the platoon will always have its own OP. An OP consists of a sentry suitably posted, using field glasses if available.

(*b*) Patrolling.

(*c*) Shelreps/Mortreps.

(*d*) Observation from weapon slits, primarily by sentries.

(*e*) Denying information by:—

(i) Concealment: track discipline and strict attention to camouflage.

(ii) Strict fire discipline.

Communications

331. Communications should be tested regularly to ensure that they are in reliable working order.

Arms and equipment

332. The platoon commander must issue clear orders on dress, equipment to be worn and arms to be carried. He should include:—

(*a*) Orders about when steel helmets, boots and pouches are to be worn. They should be worn by sentries, by anyone leaving his section area and by everyone at stand-to.

(*b*) An order forbidding troops to leave kit lying about anywhere outside the weapon slits.

(*c*) Orders about drying towels, clothing and blankets. These will depend on the air situation and whether the platoon is in a forward or reverse slope position.

(*d*) An order laying down times of cleaning for LMGs. These times must be staggered so that not more than one LMG is stripped at any one time.

(*e*) An order regarding bayonets: usually they will be fixed.

Inspections

333. Inspections by the platoon commander help to ensure a high standard of readiness. His routine inspections should include arms, ammunition, wireless equipment, tools, clothing, personal cleanliness of troops and the general cleanliness of his platoon position.

Platoon HQ

334. Routine duties in platoon HQ include:—

(*a*) *Command.* Either the platoon commander or sergeant must be in the platoon area. Messengers should deal with the platoon sergeant when the platoon commander is asleep. Field glasses, compass, notebook and pencil should be readily available to the commander.

(*b*) *Communications.* The platoon sergeant must ensure that the telephone is always manned; this will be another task for the platoon HQ sentry.

(*c*) *Illumination.* At night, the platoon HQ sentry must have illuminants ready to put up at once if necessary.

(*d*) *Anti-tank.* The platoon anti-tank team should not be thought of as an integral part of platoon HQ. The weapon will be located where it can best carry out its task. In contact, it should always be manned.

Rest

335. No one can give of his best for long without sleep. Junior leaders must always try to see that they themselves and their men get enough rest. The only way to ensure this is to organize rest in the same way as any other duty is organized. Rest will mostly be taken in the day-time, especially on a forward slope.

Stand-to

336. Troops stand-to in defence so that their commanders can ensure that all is ready to meet an attack at the start of each day and night. The times of stand-to are influenced by the enemy's habits and the existing threat from shelling.

337. Matters which the platoon commander should check on stand-to are:—

(*a*) Arcs of fire.
(*b*) LMG fixed lines or arcs.
(*c*) Sentries.
(*d*) Range cards.
(*e*) Communications.
(*f*) Stowage of equipment.
(*g*) Dress.

338. When the platoon commander has been round his platoon and satisfied himself that it is ready in all respects, he will report to his company commander.

DEFENCE UNDER NUCLEAR CONDITIONS

SECTION 50.—GENERAL

339. When considering defence under nuclear conditions it has been assumed that platoons will normally be operating from APCs, each capable of carrying a Section or Platoon Headquarters. The scale of Wireless Sets (besides those in APCs) will be sufficient to enable sections and Platoon HQ to work over the distances described in the following sections.

340. The aim of the defence as a whole is to destroy the enemy. This may be achieved by forcing him to concentrate and so present a target for our nuclear weapons. The opportunity afforded by such a concentration will be fleeting.

341. The defence may be based on an obstacle such as a river line, a series of dykes or thick woods to delay the enemy and give time to report resulting concentrations. The main task of the forward infantry is to observe and accurately report the enemy's movements. By day they will be assisted by artillery OPs and, on occasions, patrols from the Corps Armoured Car Regiment.

342. A platoon will be made responsible for an area of ground rather than ordered to hold a specific feature. Ground will be used to provide observation.

343. Dispersion is necessary to avoid presenting the enemy with a target for his nuclear fire. As few troops as possible will be deployed forward and as many as possible held in reserve in depth. A platoon may be responsible for at least 1,000 yards of front and an area of 1,500 yards deep.

344. APCs help to give the mobility essential to detect and delay the enemy but this will also call for quick thinking by junior commanders. Good battle procedure and efficient communications will also be necessary.

345. Infantry will not normally live in, nor actually fight from, their APCs. Furthermore, APCs and other vehicles are liable to damage by enemy action and are not infallible mechanically. They may not always be tactically acceptable in an infantry position, nor are men safe in them when static at night. To base protection solely on mobility is therefore a fallacy.

Stages in the battle

346. Within the battalion area, the defensive battle is likely to follow a number of stages:—

(*a*) OPs and or reconnaissance patrols detect and report the enemy's preparations and movements.
(*b*) Forward company groups report the situation in more detail and impose as much delay as possible.
(*c*) Reserve company groups including supporting tanks deploy forward as necessary to impose further delay.
(*d*) Nuclear fire is put down on the enemy delayed by the battalion group.

Operations to mop up enemy survivors and restore observation on the obstacle must be undertaken by troops who are in a fit state and available to carry them out; probably they will be from a reserve battalion.

Platoon tasks

347. The tasks of forward platoons will be:—

(*a*) To observe and report on the enemy: this is the primary task.
(*b*) To hamper and delay enemy penetration in their areas.

348. Reserve platoons of forward companies and platoons of reserve companies will be called on to:—

(*a*) Report the depth of enemy penetration.
(*b*) Move to blocking positions astride the enemy's line of advance. To impose delay.

SECTION 51.—DEPLOYMENT OF FORWARD PLATOONS

349. The two main considerations will be:—

(*a*) To obtain the best observation.
(*b*) To have as few men forward as possible.

Fields of fire must also be considered, as forward sections will have to fire on the advancing enemy, both in self-defence and when it is clear that their positions have been given away.

350. Unless the country is very thick, it should generally be possible to have some men back in reserve. By night,

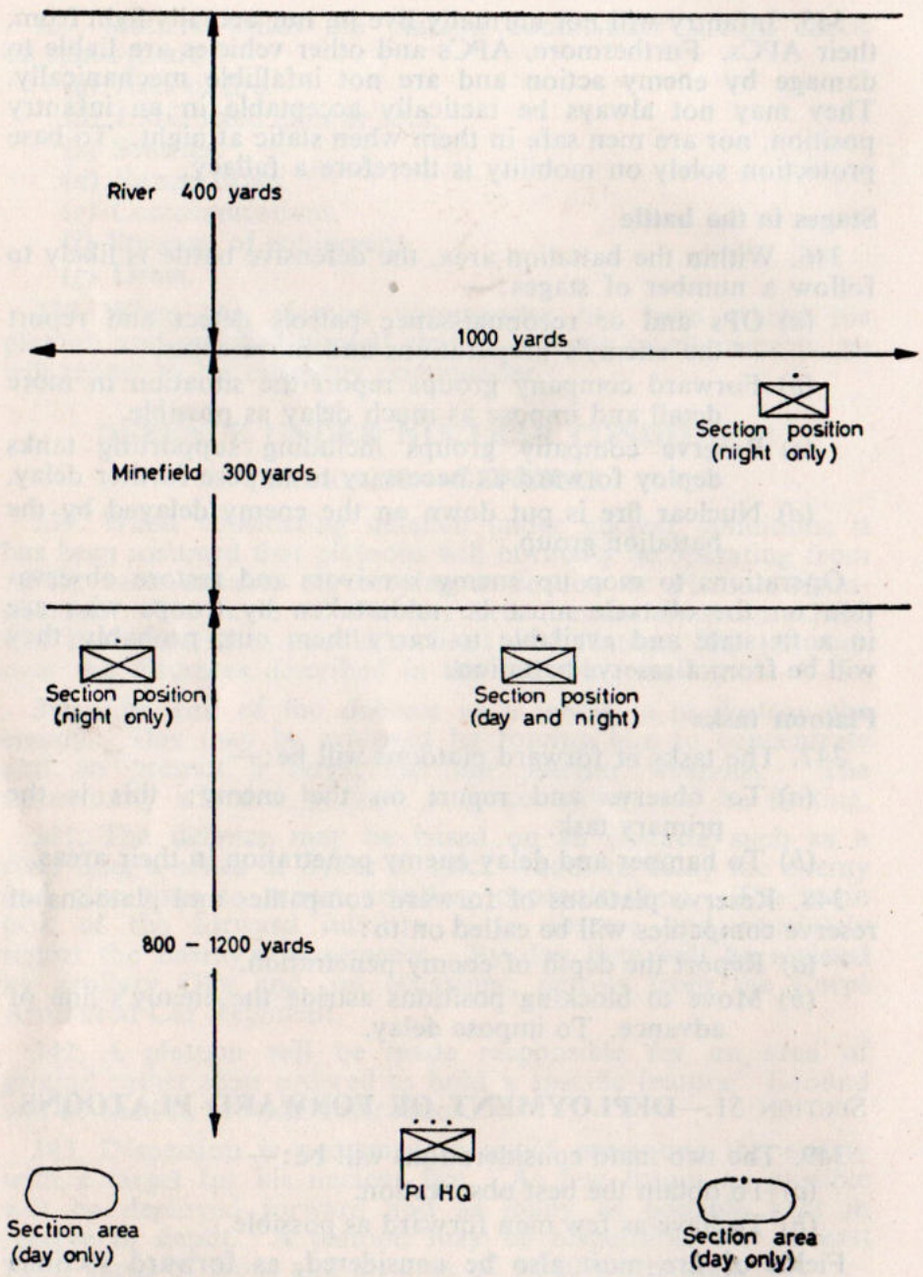


FIG 4.—Diagrammatic layout of a platoon in an observation role in the obstacle zone under nuclear conditions

however, all sections will probably have to be forward to make sure of detecting the enemy. Some sections may have to be positioned in our defensive minefield.

351. The platoon commander should first consider his lay-out for night and fog; he should then make the necessary adjustments for day. A possible lay-out of a forward platoon in an observation role in the obstacle zone is shown in Figure 4.

352. The APCs of the forward platoons will be parked as near the section posts as possible; they will normally be kept near platoon HQ under the platoon commander's control. This is also helpful for local defence.

353. The platoon commander may have to move most of his platoon forward each evening and back each morning. If he moves into night positions before it is completely dark, the movement may be seen by the enemy. If he waits, however, the front will be inadequately watched for a time at last light. He must avoid a regular routine in the time of these moves and in the routes selected. Movement must be kept to a minimum. The necessity for it depends largely on the amount of cover available and the degree of enemy observation over it.

Siting platoon HQ

354. The most important consideration is good communications to the sections and company HQ. When the frontage to be covered is wide, it would be wrong to treat platoon HQ as a fourth forward position. It will normally be about 400 yards behind the forward sections and may thus give some depth to the platoon lay-out.

SECTION 52.—ACTION OF FORWARD PLATOONS

Probable enemy tactics

355. If our position is sited behind a river obstacle, the enemy will probably first send across small reconnaissance boats seeking information about the river and its banks, the minefield and the locations of our forward positions. These patrols may be followed later the same night or the next night by others in greater strength. These may cross in amphibious APCs supported by light swimming tanks to probe our defences and obtain detailed technical information about the river and the minefield.

356. A series of nuclear strikes will precede the main enemy attack by infantry and light swimming tanks. While these troops are expanding the crossing, engineers will built rafts and bridges to enable heavier armour to cross.

Platoon counter-measures

357. Whether there is an obstacle or not, countering the reconnaissance phase presents no new problems. Forward sections must be alert and quick to report any enemy movement so that our own artillery, tank, mortar and MMG fire can be put down effectively. Under the threat of nuclear attack, the troops may be tempted to sit tight in their shelters during the enemy reconnaissance. They must be made to see how this would be fatal to them all. The enemy must not be allowed to find out anything. Sentries must be watching from fire trenches with groundsheets or other thermal shields over them. If the enemy is seen, the sentry must call the section commander immediately. Enemy troops who approach the position must be shelled or mortared. If it is clear that the enemy is aware, or about to become aware, of the location of a section position, the section will open effective fire with small arms or the anti-tank weapon as necessary. The enemy will be most vulnerable when crossing the river or minefield. The platoon commander must impress on section commanders their advantage in knowing the ground in contrast to the enemy groping in the dark. At this stage aggressive conduct of the defence is essential.

358. After an enemy nuclear strike, sections will automatically report their state. This enables the company commander to learn at once who is left and where the gaps are.

Main enemy attack

359. A platoon is not expected to hold its ground and fight to the last if it is directly in the path of the main enemy attack. Our main defensive weapon is the nuclear missile. When so ordered by their company commander, forward platoons will break contact and occupy fresh positions from which they can delay the enemy further. This action may be repeated. Except when moving to a new position, platoons should maintain contact with the enemy. They will send back a continuous series of reports on the strength and direction of the attack. When there is an obstacle zone, forward platoons must accurately report the actual crossing.

Control of movement

360. When ordered, sections will drive back to a pre-arranged RV on carefully reconnoitred routes. The sergeant will probably be in charge at the RV as the platoon commander must stay listening to his wireless. As soon as the platoon is complete, the platoon commander will lead it back to the next bound where it will take up a new delaying position. Sections should not use their APCs as tanks and fight from them. They should either fight dismounted or try to avoid the enemy.

Counter attack

361. After the nuclear strike on enemy delayed within the battalion area, a counter attack to clear up enemy survivors and restore the observation line will be required. The troops for this task will probably be found from reserve battalions or brigades.

Platoons on the enemy flank

362. It is essential to the conduct of the defence that platoons not directly in the path of the enemy attack should stay in position unless ordered to move by their company commander. A platoon which thus becomes isolated from the rest of its company will be able to pass back valuable information about enemy activity. It may eventually become the pivot for a counter attack.

SECTION 53.—ACTION OF RESERVE PLATOONS

Reserve platoon in a forward company

363. The tasks of this platoon are:—

(*a*) To help in delaying enemy penetration.

(*b*) To provide a reserve to replace a forward platoon obliterated by a nuclear strike.

(*c*) To provide OPs and patrols in depth in the company area.

364. The platoon commander, platoon sergeant and section commanders must make a detailed reconnaissance of the areas of the forward platoons and of the various routes to them.

365. If the reserve platoon is not required to provide a line of OPs in depth, it will lie up in a hide to the rear of the company area of responsibility. The sections will be well spread out and will dig in beside their APCs. These trenches will be principally for protection but will be sited so that they can be fought from if necessary.

Platoons in reserve companies

366. The tasks of these platoons are:—

(*a*) To delay enemy penetrations, in conjunction with the reserve armour, from several alternative delaying positions.

(*b*) To provide patrols in depth and on the flanks to observe and report on the enemy.

(*c*) To help the engineers prepare the obstacle. This task may be done by reserve battalions.

(*d*) To deal with enemy infiltration and airborne attacks.

367. These platoons should be well concealed but should not be sited in covered areas which are obvious targets for enemy nuclear strikes. They will dig in to gain maximum protection from a nuclear explosion in hides well to the rear of forward companies. These positions will be sited so that they can be fought from if necessary.

Reconnaissance

368. All sub-unit commanders and drivers must have a detailed knowledge of the whole battalion area so that they can find their way about in the dark.

Rehearsals

369. Reserve platoons should rehearse:—

(*a*) Drills for moving from their hides into delaying positions.

(*b*) Possible counter-attacks.

SECTION 54.—ROUTINE

Protection

370. Except against nuclear radiation, the APC gives as much protection as 18 inches of overhead cover. Troops off duty should therefore be in APCs or underground.

371. When digging in, troops should provide themselves with a thermal shield such as a groundsheet as soon as possible.

Communications

372. Good observation is of no use unless what is seen can be reported. Voice procedure throughout the platoon must be first class. Operators will be trained to site wireless sets intelligently. Good training makes it possible in some circumstances to have all the wireless sets in a company on the same net. This greatly speeds up the passage of information and orders. In areas of fall-out, the only means of passing information may be by wireless. The platoon commander may not be able to visit his sections as often as usual, hence the importance of the section wireless set.

Stand-to

373. The whole platoon will not stand-to in open trenches at the same time. Only sentries will be observing; the rest of each section will be awake and fully dressed in their shelter trenches.

Support weapons and tanks

374. Supporting detachments should be given as much protection as possible, especially at night. Where platoon HQ can be sited near a tank or MOBAT, the same sentries can protect both.

CHAPTER X

PATROLS

"Make the watch strong, set up the watchmen, prepare the ambushes".—Jeremiah li, 12.

SECTION 55.—AIMS OF PATROLLING

375. Patrols may be sent out:—

(*a*) To obtain information.

(*b*) To dominate No Man's Land and gaps between formations and units.

(*c*) To destroy or disrupt enemy forces.

376. In war, a commander cannot plan a successful operation without accurate and up-to-date tactical information. Patrolling is one of the most reliable means of obtaining this.

377. Domination of No Man's Land implies winning and keeping moral and physical ascendancy over the area between the opposing FDLs. This makes it easier and safer for our patrols to move in this area and to obtain information. Conversely, it makes it harder and more dangerous for the enemy to do so. Gaps between units must be patrolled to prevent large bodies of enemy infiltrating or forming up for an attack unobserved.

378. Patrolling is carried out by both sides by day and night in all the phases of war. Successful patrolling calls for a high standard of individual training, good team work, and initiative and determination on the part of the patrol leader. It has a beneficial effect on unit morale and will adversely affect the enemy's morale.

379. Patrolling enables the defence to be conducted in an aggressive manner. In peace-time, it is an excellent stimulant to training because it creates keen interest and can so easily be made realistic. *The foundation of successful patrolling is thorough preparation.*

SECTION 56.—TYPES OF PATROL

Terminology

380. All patrols have the task of providing information. They must also be prepared to fight, either to gain information required or to protect themselves if the information is being gained by stealth. There are two main types of dismounted patrols:—

(*a*) Reconnaissance patrols.

(*b*) Fighting patrols.

Reconnaissance patrols

381. These are patrols, of a minimum strength for the task, which gain information by observation and operate generally by stealth. They avoid combat except for self-protection or to take advantage of an unusual opportunity.

382. The roles in which reconnaissance patrols may be employed include:—

(*a*) Collecting topographical information on features, tracks and the state of the ground.
(*b*) Obtaining details of enemy minefields and the extent of of enemy positions.
(*c*) Locating enemy MGs and DF areas.
(*d*) Investigating noises made by the enemy, enemy habits and patrol routes.
(*e*) Checking our wire and/or minefields at first or last light.
(*f*) Acting as listening posts to give early warning of enemy approach and with the ability to call down fire.
(*g*) For details of monitoring patrols, *see* "Precautions against Nuclear Attack, 1957", (Code No. 9466) Appendix C.

Fighting patrols

383. These are patrols organized for a particular task with sufficient strength and armament to accept combat.

384. The roles in which fighting patrols may be employed include:—

(*a*) Denying enemy patrols freedom of action in No Man's Land.
(*b*) Driving in enemy protective patrols.
(*c*) Interfering with enemy working parties.
(*d*) Distracting enemy attention from other activities.
(*e*) Carrying out raids.
(*f*) Capturing prisoners for identification purposes.
(*g*) Tank hunting.
(*h*) Laying ambushes.
(*j*) Protecting reconnaissance and working parties of other arms.
(*k*) Escorting stretcher parties.

Strength and composition

385. The strength and composition of a patrol must be related to its role. As a guide, fighting patrols and ambushes are rarely less than one officer and fifteen other ranks. This is related to the number which can be effectively controlled by one man at

night, the size of enemy patrols, whether a patrol base is to be formed and the mission given to the fighting patrol. Reconnaissance patrols may consist of an officer or NCO and one to four men, relying mainly on stealth to avoid detection. A second-in-command must be detailed for every patrol.

386. The decision to use a reconnaissance or fighting patrol for a particular mission is a matter for appreciation. The principles of patrolling are the same for both.

SECTION 57.—CO-ORDINATION AND PLANNING

Responsibility

387. Within the battalion, the company commander is generally responsible for the briefing and interrogation of patrols but the Intelligence Officer will usually provide information about the enemy, our troops, ground and in particular any information acquired by previous patrols. The Commanding Officer may do this himself, for example, if the task is of special importance.

388. It is usual for the company commander to control all local patrols operating on his front and special patrols outside the wireless range of battalion HQ. He should therefore brief and debrief such patrols.

Aim

389. The aim of each patrol ordered out must be clearly defined and understood.

Time for planning

390. Patrols should be planned sufficiently far ahead to enable the battalion commander or his representative to brief the patrol leader fully. Sufficient time must be allowed for the patrol leader himself to study maps and air photographs and make a reconnaissance. The time required for this will depend on the task and whether the members of the patrol are familiar with the ground.

Sequence of preparation

391. A suggested logical sequence might be:—

(*a*) Warning order from battalion HQ.
(*b*) Company commander or CO and probably, the IO, brief the patrol leader.
(*c*) Selection of OPs from the map.
(*d*) Warning order detailing troops concerned, time and place of RV and any special administrative arrangements.
(*e*) Reconnaissance from OPs.

(*f*) Appreciation and plan.
(*g*) Prepare orders.
(*h*) Prepare model.
(*j*) Meet patrol and point out ground from OP.
(*k*) Issue orders.
(*l*) Rehearsals.
(*m*) Preparation and inspection of arms and equipment.
(*n*) Rest.
(*o*) Food.
(*p*) Night rehearsal.
(*q*) Final check of arms and equipment.
(*r*) Checking up on patrol.
(*s*) Patrol action.
(*t*) Interrogation and patrol report.

What the patrol leader must know

392. Before leaving on reconnaissance, the patrol leader should ensure that his orders cover the following points:—

(*a*) All available information about the enemy.
(*b*) Information about our troops such as dispositions of forward troops, minefields, lanes, gaps in wire and details of other patrols going out.
(*c*) The aim of the patrol—MISSION.
(*d*) Time out and where; time back and where. (Time restriction on patrol leader only when considered necessary).
(*e*) Any limitations affecting his choice of route, particularly our DF areas.
(*f*) Fire support, if any.
(*g*) Recognition, password and any special signals.
(*h*) Action to be taken on meeting enemy.
(*j*) Any special subject on which information is required.
(*k*) Any special administrative arrangements.

Reconnaissance and planning

393. The patrol leader must:—

(*a*) Check that he has been provided with all the information he can obtain such as maps, air photographs and reports of previous patrols.
(*b*) Plan and carry out a detailed reconnaissance.
(*c*) Study the ground with the following in mind:—
(i) Routes.
(ii) Obstacles.
(iii) Landmarks.
(iv) OPs.

(v) Dead ground and covered approaches.
(vi) Places where ambushes may be met or laid.
(vii) Enemy positions, likely positions and DF areas.
(viii) Effect of the moon or movement light, if any.
(*d*) Check very carefully distance and compass bearings of bounds or legs on routes, also timings.
(*e*) Keep his plan as simple as possible particularly if the patrol is to be done at night.

Physical fitness

394. Men selected for the patrol should be free from coughs and colds and otherwise physically fit.

Patrol leader's orders

395. The success of the patrol will depend on the contents of these orders and the manner in which the patrol leader gives them. This will take time since they must be detailed and must cater for every contingency but some time can be saved if certain actions are mentioned in outline only and practised in detail later during rehearsals. Patrol orders will always be given to the whole patrol. They must be given slowly and by stages, the members being allowed to ask questions as the various points arise. After the orders have been given, the leader must be confident that every member not only knows his own job thoroughly but is capable of taking charge in an emergency or even of completing the mission by himself should the need arise.

396. The essentials of a patrol order may be given in the following sequence:—

(*a*) *Ground* should be described on a model and from OPs. Enemy and our positions, landmarks and routes should be pointed out.
(*b*) *Mission* will include the task allotted. This is best expressed in the form of a question in the case of a reconnaissance patrol or an order in the case of a fighting patrol: " We will . . .".
(*c*) *Execution* must include:—
(i) Position and job of each man.
(ii) Patrol formations (Rehearse).
(iii) Routes out and in, legs, bearings, distances in paces and type of country and gradients on each leg.
(iv) Time out and in.
(v) Action at halts.
(vi) Action at RV/Firm base.
(vii) Action on reaching the objective (Rehearse).
(viii) Action when crossing obstacles.
(ix) Action on bumping enemy (Rehearse).
(x) Action on illumination or trip flares (Rehearse).

(*d*) *Administration and Logistics*:—

(i) Timings:—

Day rehearsals .... hrs.
Inspections .... hrs.
Rest .... hrs.
Food .... hrs.
Night rehearsals .... hrs.
Final inspection .... hrs.

(ii) Preparation and distribution of weapons, ammunition, equipment and clothing.

(iii) Medical, morphia, collection and disposal of wounded:—

(*e*) *Command and Signal*:—

(i) Patrol signals including opening fire.

(ii) Password.

(iii) Instructions for the use of wireless, including any restrictions.

Rehearsals

397. All actions of the patrol must be thoroughly rehearsed before it sets out. The leader must be quite clear as to what he wants to rehearse; vague rehearsals of formations alone are of little use. A daylight rehearsal should be held to practice the following:—

(*a*) Order of march and individual positions in all formations to be used.
(*b*) Method of changing formations.
(*c*) Obstacle crossing.
(*d*) Action on meeting the enemy on the route.
(*e*) Action on the objective.
(*f*) Signals for everything.
(*g*) Action at halts.
(*h*) Action at lights.
(*j*) Casualty evacuation and prisoner escort.

Rehearsals should be repeated at night.

398. The patrol leader should check the administrative arrangements for the reception of his patrol when it returns. Shelter, dry clothing, a meal and a hot drink should be available whatever the time. This gives all members confidence in the interest taken in their welfare. If possible, arrangements should also be made to enable them to get a few hours undisturbed sleep.

Patrol reports

399. Although it may be customary for a patrol leader to report verbally to his company commander as soon as he returns, a written report of the patrol must always be made for record purposes. The patrol report will be completed by the officer interrogating the patrol with the patrol leader and will, on completion, be forwarded to the next highest authority. A specimen proforma for a patrol report is shown at Appendix A.

400. The patrol leader, and on some occasions, the members of the patrol, should be interrogated as soon as possible after return. This should be done by the officer who conducted the briefing. The interrogation should be planned and dealt with in the order of events as they happened during the patrol.

SECTION 58.—EQUIPMENT

General

401. The weapons and equipment to be taken and the dress to be worn will depend on the patrol's task. As a general rule, patrols should operate as lightly equipped as possible. Patrols may be cut off and have to lie up in No Man's Land until the next night; they should therefore generally take with them their water bottles and emergency rations.

Weapons

402. Fighting patrols must be able to produce the maximum fire quickly. Automatic weapons and grenades will be the principal weapons. LMGs, though rather heavy and cumbersome, should be taken if possible providing carrying them does not hinder the patrol. On some occasions, however, the increased fire power of the SL rifle may enable the patrol to dispense with LMGs. Weapons should be loaded with actions cocked and safety catches applied. Bayonets should be fixed and blackened. Both HE and smoke grenades should be taken. Grenade pins must be checked to ensure that they are readily removable but safe.

Equipment

403. Web equipment should be reduced to a minimum. Everything must be well fitted, and must not rattle. For details of equipment taken by monitoring patrols, *see* "Precautions against Nuclear Attack, 1957". (Code No. 9466).

Clothing

404. This will depend on climate and weather but should be comfortable, protect the wearer and enable him to move silently without tiring him. In general, the following should be avoided:—

(*a*) Smooth surfaces likely to shine in moonlight or under flares.
(*b*) Colour contrasts.
(*c*) Stiff clothing; this rustles during movement.

Footwear

405. Footwear should be soft but must protect the feet. If they are available, suitable quiet boots should be worn. Gym shoes do not give sufficient support or protection to the ankles and feet on hard, rough ground.

Special equipment

406. Patrol leaders will generally find the following useful:—

(*a*) Thick writing paper and soft black pencil.
(*b*) Compass with luminous dial and lanyard.
(*c*) Watch with luminous face and lanyard (watch in pocket).
(*d*) Fieldglasses: these are valuable at night.
(*e*) Wire cutters, sacking and tape.
(*f*) Torch.
(*g*) Morphia, in case anyone is wounded, and a stretcher. A stretcher can be improvised from a blanket and spare rifle slings.

SECTION 59.—CONDUCT OF PATROLS

Final inspection

407. Before setting out on patrol, the leader must carry out a final inspection to ensure that the men are properly armed and equipped and that their arms and equipment do not rattle. No one must carry anything that might give away valuable information if it should fall into enemy hands. Men must be suitably camouflaged with their hands and faces darkened at night.

Fieldcraft

408. The patrol should see or hear the enemy before it is itself seen or heard. This demands great patience, skilful and silent movement and good observation. Frequent listening halts are essential. The patrols should lie down, so as to take advantage of the skyline and should observe in all directions. They must observe carefully, the leader using his fieldglasses to scan the ground. The patrol must also keep perfectly still and listen intently. At night, the ears reveal more than the eyes. The patrol should not move until certain that there is no one else nearby. These halts are made frequently and take up a lot of time but they are essential to the success of the patrol. Between halts, the patrol should move at the best possible speed.

Formations

409. The formation adopted depends on the type of patrol, its size, ground, control, protection and concealment. Formations should be kept as simple as possible. Useful formations

are file, single file and with the patrol disposed in a diamond-shaped formation. The distance between individuals is governed by the visibility. When contact with the enemy is likely, it is often advisable to have a scout group as the leading element of the patrol. This group moves ahead of the patrol leader in short bounds, according to the degree of darkness. The wireless operator should be close to the patrol leader. He should keep his headset on all the time and because of the nature of his work, it is desirable that he be given a protection man. He must stay on listening watch. The patrol leader, wireless operator and his protector are the command group; they should normally move behind the scout group.

Routes

410. Routes out and in should be different. They should be broken down into "legs", each having a magnetic bearing and a known distance. Legs should be measured from the map to the nearest 50 paces finishing at or near a feature easily recognizable at night. These legs must be known to everyone in the patrol. If the patrol should be dispersed, all members should return to an RV at the end of the previous leg. This drill enables the patrol leader to regain control as quickly as possible. When enemy interference makes this impossible, the only practical alternative is for the members of the patrol to return to their starting point. Too many legs may complicate matters and are difficult to remember but they should not be too long.

411. By night, except perhaps in bright moonlight, the route should avoid prominent cover such as corners and edges of woods, tracks, hedges and deep defiles as these are likely places for enemy ambushes or standing patrols to be located. The patrol should use open ground rather than cover. When moving along sloping ground, the patrol should "contour" round the slope keeping fairly well up but below the crest. Moving along high ground increases the risk of being seen against the skyline. When crossing a ridge, the patrol should crawl and try to make use of any background available.

412. By day, concealment is all-important. Routes should be chosen to take advantage of all possible cover.

Night navigation

413. It is essential that a patrol should be able to find its way accurately. This can be difficult on a really dark night or in fog. The best aid to keeping direction at night is the compass. Careful study of maps and air photographs will help but the surest way of reaching the objective is to march on chosen bearings, counting the paces taken on each leg. This method

of marching in legs is described in Paragraph 410 above. Features and landmarks help in checking position. Much practice is required to reach a high standard in the use of the compass at night. Other aids which are sometimes available are the stars, artillery fire, tracer and movement light.

Approach to the objectives

414. On approaching the objective, movement will be slow and halts frequent. Any unnecessary noise at this stage might betray the patrol.

Obstacles

415. All obstacles whether natural or artificial must first be examined by the patrol leader. The crossing of obstacles by the patrol should be done as a drill as previously rehearsed. To avoid confusion, it is best to keep the same pre-arranged order for crossing all obstacles. All movements through or across an obstacle must be carried out carefully; they should not be rushed as this is a time when the patrol is unavoidably spread out and vulnerable. At least one member should be ready to fire his weapon or throw a grenade if the patrol is surprised by the enemy while crossing the obstacle.

Water obstacles

416. Sometimes it is necessary for patrols to cross or make a reconnaissance of water obstacles. It may be possible to wade or swim across but more often a boat, which will be difficult to carry, or some improvised means of crossing is needed. Whatever arrangements are made, they must be thoroughly rehearsed in the dark. An operation of this kind calls for care, as a small mistake may prejudice success. Chapter XV deals with equipment and watermanship. Fuller details are given in "Field Engineering and Mine Warfare" Pamphlet No. 8 (Code No. 8306), Part I.

Action on the objective

417. It is difficult to plan action on the objective in detail, especially if it cannot be seen clearly from the OPs. Often only an outline plan can be prepared. On arriving near the objective, the patrol leader should quickly:—

(*a*) Search the area, especially the RV, for an unexpected enemy.

(*b*) Make a brief reconnaissance to enable him to plan how to carry out the patrol's task.

(*c*) Tell the patrol how the task is to be done. The plan must be simple, particularly if part of the patrol is to be ready to support the rest with fire.

RV on the objective

418. There must always be an RV near the objective to which the patrol goes if there has been contact with the enemy. This RV must be easy to find but not too obvious. It must be pointed out to all members of the patrol on their approach to the objective so that they can recognize it and the way to it when they are ordered to withdraw from the objective.

Action on lights

419. When a flare is fired, there is usually time to fall flat before the light takes full effect. When caught by light, however, it is usually best to freeze; it is movement which is most likely to give the patrol away. One eye should be closed to avoid night blindness when the flare goes out.

Action on setting off a trip flare

420. Trip flares are easy to conceal, easy to set off and when set off they light at once and last for some time. The flare also gives off smoke which may silhouette the patrol effectively. Trip flares are sited to give early warning to the enemy of anyone approaching his position and they will usually be covered by fire. To help overcome this danger, the patrol leader is advised to carry with him a light stick or wire to feel for trip wires and so locate them without setting off flares. If the patrol leader can find the flare itself, he may be able to disarm it but this operation is difficult since flares are spring loaded. The best course is to mark the wire and flare with white tape and avoid it. If the patrol should set off a trip flare, it must move away rapidly to avoid enemy reaction.

Splitting the patrol

421. Splitting the patrol should be avoided but it will be necessary in the case of large patrols when only a few men can be used in the final stages. When a patrol is split, there is a danger of the two parties clashing or losing each other. Also if one party is engaged by the enemy, it may be difficult to re-unite the patrol.

Action if surprised

422. Action if surprised must be simple. It must be planned and rehearsed before the patrol sets out. It will depend on the type of patrol, the strength of the enemy and the ground on which he is encountered. A patrol should not be given more than two alternatives. The patrol leader must have a clear means of indicating which action is to be taken.

423. Possible courses of action are:—

(*a*) The patrol leader throws a smoke grenade and the patrol runs a pre-arranged distance or follows the leader in the direction he shouts.

(*b*) An immediate physical assault firing weapons.

(*c*) Get down, fire weapons and throw grenades until the leader signals on his whistle, then runs as in Sub-paragraph (*a*) above.

Supporting fire

424. Fire support can be called for over the wireless or it may be pre-planned. Possible fire tasks in support of a patrol include:—

(*a*) Distracting the enemy's attention while a patrol crosses an obstacle or approaches the objective.

(*b*) Helping a patrol to extricate itself in an emergency.

(*c*) Support on the objective.

Casualties

425. All casualties must be brought back, not only for reasons of morale, but also to deny information to the enemy. Wounded must be attended and made comfortable as soon as possible. A man wounded on the way to the objective may have to be left to be collected on the way back; it may be possible to summon another patrol by wireless to pick him up if he is left by an easily identified feature. When men are wounded on the way back, the problem is not so great. Unless a man is severely wounded, it is usually possible for him to be carried between two men, sitting on a rifle. If he is badly wounded, a stretcher must be improvised with rifle slings and wood or other available material.

426. A plan must be made for substitution within the patrol of key members such as the patrol leader, NCOs and the wireless operator in the event of them becoming casualties.

Prisoners

427. If a fighting patrol takes a prisoner, whether that is its task or not, he must be brought back alive as prisoners are a valuable source of information. If the patrol's task is not ended, it may not be practicable to keep the prisoner with the patrol as he may handicap its movement or make a noise which betrays it. He must be put under close guard, gagged and then either taken back or left to be collected later or even picked up by another patrol detailed to follow up for this purpose.

A patrol standing by

428. It may be necessary to have a patrol ready and briefed to follow one or more patrols already out. This can be useful when:—

(*a*) There is a particularly important and difficult task facing a patrol: should the patrol fail or run into serious difficulties, the patrol standing by is sent out to complete the task.

(*b*) A patrol has had casualties and needs help to bring them back.

(*c*) A patrol has taken prisoners and to escort them would stop the patrol completing its task through lack of numbers.

Firm base

429. A fighting patrol may set up a firm base from which one or more reconnaissance patrols go out and return. This is done especially in jungle or mountain warfare. It is a help to reconnaissance patrols if they are escorted part of the way out and is useful for casualty evacuation. It is sometimes necessary to set up a firm base to step up wireless communications from deep patrols to their HQ.

SECTION 60.—AMBUSHES

General

430. There are many types of ambush and they can be put to a variety of uses. Ambushes are just as likely to be used in operations in support of the Civil Power as in full-scale war. They may be deliberate or immediate. They may have as their target men, vehicles or tanks.

Information

431. All available information is needed about enemy movements, strengths, routes, timings and location of reserves.

Security

432. The need for secrecy affects the amount of prior reconnaissance which can be done. The operation will be prejudiced if anyone is seen in the ambush area by the enemy or by hostile civilians. This is particularly true of operations in support of the Civil Power when the only safe course is to assume that all civilians are potentially hostile.

Planning

433. (*a*) The killing area should be where the enemy is forced to move on a narrow front and where he has had to close up to maintain contact and control.

(*b*) Siting individual positions will vary but the LMGs must have priority. Exits must be sealed by fire, mines or natural obstacles.

(*c*) A reserve must be detailed. This must be capable of moving and acting on its own initiative but is initially sited on the same side of the ambush position as the RV to be used on withdrawal.

(*d*) Lookouts must be on watch at both ends of the position; they must be in contact with the main body by means of a cord or cable so that they can give a silent warning. There must also be cleared paths to their positions to allow silent reliefs.

(*e*) If the ambush is to last for 24 hours or more, an Administrative Area is necessary. This must be defendable, out of earshot from the main position and have lanes to it cleared for silent approach. A local supply of water is desirable. The RV and the Administrative Area will often, for convenience, be in the same place.

Orders

434. These are issued in two parts. As much as possible is given with the aid of a model before leaving the battalion area. Detailed positions and arcs can only be settled on the actual ambush site.

Occupation

435. When the ambush has been prepared, it should be occupied as follows:—

(*a*) *By day*. Lookouts should be maintained, LMGs manned and enough men positioned to spring the ambush. The remainder will be in the Administrative Area.

(*b*) *By night*. All positions must be manned and no movement must be allowed in the ambush area. Groups should be in touch contact, part of the group observing while the others rest. Movement will almost certainly result in casualties to our own side therefore no one should be allowed to visit an ambush.

Springing the ambush

436. Lookouts may or may not withdraw after warning the main position. The point requires careful thought and a clear decision. The commander will give the signal to open fire either by tapping an LMG gunner on the shoulder or by firing the first round himself. At night, illumination is needed the moment fire is opened. Lights are best but trip flares can be used. Flares may be set off by mistake or by animals and so give away

the position, so it is best if they are operated by hand. At the required moment, the commander must be able to stop the fire at once; the only practicable way of doing this is by voice or whistle. This enables the previously detailed search party to go forward and search the area for enemy dead and wounded and pick up any information available before withdrawing to the RV.

Withdrawal

437. The signal to withdraw can be given by whistle, Verey light or smoke grenade. Groups then move independently to the RV as fast as possible, covered by a reserve. Time spent in the RV must be kept short to lessen the chances of being outflanked. The withdrawal must be fully rehearsed.

SECTION 61.—TANK HUNTING

438. Tanks are vulnerable to short range infantry anti-tank weapons and infantry fighting patrols may be sent out to destroy lone tanks in a defensive position or tanks in leaguer. The size of the tank hunting patrol depends on the number of tanks to be destroyed. It differs from a normal fighting patrol only in the weapons carried and action on the objective.

Organization

439. The patrol should be made up of two groups:—

(*a*) *Tank killing group*: the patrol leader and enough men to work in parties of two to each tank. They should be armed with a suitable platoon anti-tank weapon or, in some situations, with thermal grenades or anti-tank mines.

(*b*) *Covering group*: about six men armed mainly with automatic weapons. The task of this group is to cover tank crews and their protecting infantry.

Action on the objective

440. The patrol leader must make a reconnaissance of the objective; it is sometimes an advantage if he can do this the night before. He must obtain the following information:—

(*a*) Positions or beats of sentries.
(*b*) Positions of resting tank crews and protecting infantry.
(*c*) Exact location and number of tanks.
(*d*) Best position for covering group.
(*e*) Suitable RV.

441. The covering group then takes up a position from which it can carry out its task effectively. The tank killing group splits into its pre-arranged tank killing parties which make for their respective tanks. The time allowed for movement depends on distance and various other factors.

442. The signal for the tank killing parties to open fire will be given by the patrol leader. The patrol leader must lay down a pre-arranged signal for the covering group to open fire; this will not normally be given unless surprise is lost.

SECTION 62.—PATROLS OF LONG DURATION

443. Infantry may be sent on patrols lasting a week or more through enemy or terrorist-held country. These patrols are much the same as those already mentioned but special arrangements have to be made for their administration. There is also the special matter of lying up and the protection of the lying up area.

A lying up area

444. A lying up area must be kept secret as long as possible. It must therefore:—

(*a*) Not be in an obvious location.

(*b*) Have a concealed entrance and exit.

(*c*) Provide enough concealment for the necessary administrative activities.

(*d*) Be within easy reach of water.

(*e*) Be easy to defend.

(*f*) In nuclear conditions, it must afford the best possible protection from a nuclear explosion.

445. Whenever possible, a lying up area should be picked beforehand after careful study of maps and air photographs. There may well be an extra requirement for a Dropping Zone (DZ) or suitable landing strip for light aircraft. It is usually not difficult to clear a landing place for a helicopter.

Protection

446. Cautious movement is as important as on any other patrol and the need for sentries and alarm schemes is much the same as outlined in Chapter VIII, "Protection". Also:—

(*a*) Early warning of enemy approach is more of a problem than usual.

(*b*) In close country, standing patrols or listening posts, with wireless sets, may be necessary to cover the position.

(*c*) As with ambushes, movement at night must be kept to a minimum; no one must move outside the area unless on some organized task such as a patrol.

(*d*) All refuse must be buried. Apart from reasons of hygiene, refuse left on evacuating a lying up area will show how recently the site was occupied and give the enemy an estimate of the strength of the party. Latrines must be filled in for the same reasons.

CHAPTER XI

THE DELIBERATE ATTACK

"For the conduct of the war; at the first, men rested extremely upon number: they did put the wars likewise upon main force and valour; pointing days for pitched fields, and so trying it out upon an even match: and they were more ignorant in ranging and arraying their battles. After they grew to rest upon number rather competent than vast: they grew to advantages of place, cunning diversions, and the like: and they grew more skilful in the ordering of their battles".—Francis Bacon, Lord Verulam.

SECTION 63.—DEFINITIONS

General

447. Deliberate attacks are mounted against strongly prepared enemy positions with the aim of breaking through the defences to enable mobile forces to break out.

Assembly area

448. An assembly area is the place where a unit assembles before an attack. It may well be sub-divided into widely dispersed company areas. An ideal assembly area is free from enemy observation and harassing fire and has good entrances and exits for transport. The distance from the FDLs may be anything from one to five miles. In nuclear conditions there will be no assembly area, but companies will remain widely dispersed in hides.

Forming up place (FUP)

449. The FUP is where battle formations are adopted for the advance to the objective. The FUP needs to be easily recognizable, well signed, lit if necessary, and not under enemy observation.

Start line (SL)

450. The start line is the line which the assaulting troops cross at H hour. It must be clearly recognizable. It may be

artificial, that is taped, or natural such as a road or hedgerow. It should if possible be at right angles to the line of advance and must be secure from enemy interference. It must not be behind an obstacle.

451. Under nuclear conditions there may be no start line or FUP as such.

H hour (H hr) and N hour (N hr)

452. H hour is the time the assault troops cross the start line. All timings for an attack are given in their relation to H hour. When attacking with nuclear support, N hour is the time at which the first nuclear missile will be exploded but timings for the assaulting troops to move will still be based on H hour. This is because it is impossible to estimate accurately how soon after N hour it will be reasonably safe to move forward. There may be delays in firing and post strike analysis may be necessary.

K Hour

453. When the attack is in two phases, K hour may also be used. This is the time the assault troops cross the Phase Two start line. It is used when it is difficult to assess the exact time for this in relation to H hour.

Phases

454. The initial attack on the forward enemy localities and the subsequent passing through of fresh troops to maintain the momentum of the attack each constitutes a *phase* in the attack.

Assault platoons

455. Assault platoons are those detailed to capture initial objectives of each phase.

Reserve platoons

456. A reserve platoon is a platoon detailed in the role of company commander's reserve. It is the means by which the company commander can deal with the unexpected and influence the battle once the attack has begun.

SECTION 64.—PLANNING

Eight basic points

457. When preparing a plan of attack, the following *Eight Basic Points* must always be borne in mind:—

(*a*) The attack must be organized in depth.
(*b*) The start line must be secure.
(*c*) The attack must be supported by the maximum available fire.

(*d*) The assaulting infantry and tanks must keep close up to the fire.
(*e*) The impetus of the attack must be maintained.
(*f*) Reorganization must be rapid.
(*g*) Supporting weapons must go forward quickly to help defeat enemy counter attack.
(*h*) After reorganization, No Man's Land must be dominated.

The platoon plan

458. The following matters have to be decided:—

(*a*) Allocation of objectives to assault sections with inter-section boundaries if these are easy to identify and would be helpful.
(*b*) Attack formations: normally two sections forward as assault sections and one in reserve.
(*c*) Allocation of tools, weapons and ammunition within the platoon.
(*d*) Allocation of sections and platoon HQ to APCs if these are to be used.
(*e*) Layout in assembly area and FUP.
(*f*) Methods of crossing obstacles.
(*g*) Details of tank support and infantry/tank target indication.
(*h*) Limit of exploitation.
(*j*) Reorganization.

Control

459. In the deliberate attack, it is essential that the platoon commander exercises full and effective control throughout the operation. If his planning is good and his briefing and orders are clear, this will be much easier. During the assault stage, he should be between the assault sections. In the final assault and exploitation he must use his voice and ensure that sections do not go beyond his control.

Briefing and orders

460. Everyone should be given a thorough briefing on a model followed by clear, concise orders. Full details about briefing and an outline of orders are given in Chapter V, Section 18. When the platoon is actually fighting through the objective, the battle orders given in Chapter VII, Section 32 must be used.

Artillery support

461. The fire plan will be designed to cover all movement and deal with any enemy who can threaten the advance. During

the move from the assembly area to the start line, artillery support may consist of one or more of the following:—

(*a*) Screening the enemy with smoke to cover movement.

(*b*) Deception by putting down smoke or harassing fire on another part of the front.

(*c*) Counter-bombardment of enemy weapons.

462. During the assault, fighting through the objective and subsequent exploitation, supporting fire will first deal with the enemy on the near edge of the objective and will then be lifted in front of the advancing infantry to neutralize successive enemy positions in depth. Artillery support may take the form of one or more of the following:—

(*a*) Concentrations on known enemy localities.

(*b*) Pre-arranged targets engaged only on call from assault companies or battalion HQ.

(*c*) Smoke screens to blind enemy positions.

(*d*) Engagement of unexpected opposition by FOOs moving with assault companies.

463. For reorganization, selected DF tasks for artillery and mortars to break up enemy counter attacks will be arranged beforehand and corrected as soon as our own forward positions on the ground are accurately known.

Tank support

464. Supporting tanks link up with the assaulting infantry in a dispersed harbour or assembly area. The platoon should know the capabilities of tanks allotted to them, and the commander's name. The platoon should know how to recognize and communicate with the tanks and how to work the tank telephone. A company in the attack may work with a troop of three tanks. The closest liaison between company, platoon and troop commanders must be established. If possible, this should include joint reconnaissance and briefing. Tanks and infantry usually move to the FUP on separate routes unless the tanks are lifting the infantry.

465. Support between infantry and tanks is mutual. The tanks can destroy enemy anti-tank guns, machine guns and strong points but are vulnerable to short range anti-tank weapons which the infantry must hunt out and destroy. When the tank is closed down the crew cannot see well nor hear small arms fire. It is therefore often necessary for enemy posts holding up the platoon to be indicated to the tanks before they can shoot at them. Full details of target indication are given in Appendix B.

466. As tanks attract enemy fire, sections should not deploy too near them. Whether tanks or infantry lead depends on the opposition and the type of country. When following up normal field artillery concentrations, tanks can advance into the middle of them and can therefore go ahead of the infantry. If tanks reach an unexpected minefield and cannot advance until a gap has been cleared, the infantry must advance alone with the tanks giving them supporting fire as best they can. Normally in close country the infantry will lead; in open country the tanks will lead.

467. Infantry can be carried on tanks up to but not into battle; they usually dismount before the tanks deploy. Before infantry go into action riding on tanks, they must be instructed and rehearsed in mounting, where to sit, dismounting, where to go after dismounting and what to do if the enemy engages the tanks with artillery or small arms fire when they are aboard.

468. Much important information on tank capabilities, recognition, inter-communication, and how to travel on tanks is given in Chapter XVIII, Section 94.

SECTION 65.—THE ATTACK UNDER NON-NUCLEAR CONDITIONS

Guides

469. Sub-units detail guides to go forward with the officer who is made responsible for the layout of the assembly or dispersed harbour area and the reception of the battalion. These guides meet their platoons at the battalion debussing point and lead them to their positions.

Action in the assembly area

470. On arrival, the platoon commander must:—

(*a*) Post sentries.

(*b*) Site and rehearse alarm posts and supervise digging in if this has been ordered.

(*c*) Carry out a final inspection of his platoon to make sure that every man is fully prepared for battle.

(*d*) Supervise charging of magazines.

(*e*) Test wireless if ordered.

(*f*) Rehearse formations and order of march for the move to the FUP.

(*g*) Order equipment to be taken off if there is time for the men to rest.

(*h*) Supervise feeding if time allows.

Move to the FUP

471. The route to the FUP will have been clearly marked by the Intelligence Section and the FUP itself will be clearly recognizable. It is important that the order of march of the platoon is so arranged that men move into the FUP so that they can move off in their assault formation with no unnecessary reshuffling. The platoon will be formed up square to its objective and men will lie down. As the FUP will be fairly near the enemy position and there is a danger of shelling, the shortest possible time should be spent there.

472. Tanks may often share the same FUP as the infantry they are supporting. In this case, timings of arrival, formations and the effect of noise and dust must be considered. The decision as to whether tanks or infantry move in first will be made by the Commanding Officer.

The advance from the start line

473. Leading troops move forward from the FUP at a time which enables them to cross the start line punctually at H hour. Platoons will now probably be advancing with two sections up and with the platoon commander, his runner and batman/operator between them. All three sections will probably be in arrowhead formation. Full advantage will be taken of artillery support. If this consists of timed concentrations, the rate of advance will be so timed that the leading troops are about 150 yards behind the concentrations as they lift forward. The leading troops then assault before the enemy has time to recover from the effect of the shelling. This can be greatly speeded up if the artillery fires coloured smoke in the last salvo before each lift.

474. Once on the move, the platoon must not allow itself to be stopped by anything less than really effective fire. One or more LMGs must always be available and ready to give covering fire during the advance. *The first duty of assault platoons is to maintain the momentum of the advance* by keeping closed up to the artillery and tank supporting fire until they reach the crust of the enemy localities.

475. If an enemy post does succeed in stopping the advance, the platoon commander must get his men moving again. Steps which he can take are:—

(*a*) Locate the enemy post.
(*b*) Use smoke and organize covering fire from the nearest LMG group.
(*c*) Report the situation on the wireless set to the company commander, asking for additional mortar/artillery support.
(*d*) Use the fire of the nearest supporting tank.

476. Artillery concentrations are planned with the rate of advance to allow time for assault platoons to destroy all enemy posts on their front. Enemy positions holding out on the flanks must not weaken the platoon's determination to advance.

477. The commanders of assault sections will have received their orders from the platoon commander and will understand his aim and their own tasks. *Once the attack has begun, they must use their own initiative to get onto the objective.*

Fighting through the objective

478. Once the enemy FDLs have been cleared, the task of fighting through the objective begins. Since the platoon is probably too close to the enemy for the artillery to help, it must fight its way forward using fire and movement as laid down in Chapter VII. If tanks are supporting the attack, good infantry/tank co-operation will be important. The platoon must destroy enemy anti-tank weapons while the tanks provide support with their main armament and machine guns. Platoon and section commanders must exert all their powers of leadership and anticipation while the company commander will influence the fight by the use of his reserve platoon(s) and the supporting arms.

Exploitation

479. In the event of unexpected success, the platoon commander must use his own initiative to seize tactical features ahead of his original task. Such action may have important results in that it may upset enemy plans for counter attack and oblige him to make detailed reconnaissance to determine the extent of penetration on his front. Exploitation therefore helps our reorganization and hampers enemy interference with it. The platoon commander must understand from his company commander's orders the extent of exploitation allowed to him. He must give his section commanders clear orders about this.

Reorganization

480. This is the process by which detailed control of the platoon is regained and the platoon is firmly established in its new locality ready to repel any enemy counter attack. The detailed arrangements must be pre-planned and included in the initial orders. Anti-tank detachment and MMG section commanders may have accompanied the platoon commander in the attack so that they can make an early reconnaissance during the initial reorganization. The platoon commander should lose no time in going round his platoon to co-ordinate the defensive layout on the objective. When F echelon transport comes up, the platoon must be prepared to help the gun crews get their

weapons into position. If captured enemy positions cannot be used, junior leaders must exert all their drive to ensure that their men dig in rapidly.

481. Patrols ordered by the company commander must be sent forward to give local protection during digging and early warning of enemy preparations for counter attack. At least one LMG group should be sited forward of the platoon position in the role of sentry.

482. Tanks which have been supporting the attack will undertake anti-tank defence until the infantry anti-tank weapons are sited and co-ordinated. Other tanks, including heavy tanks, may come forward to form the basis of the anti-tank defence. This will release tanks employed in the assault and allow them to withdraw to their forward rally area. There, crews reorganize, carry out maintenance tasks and are available to meet any enemy counter attack that may develop.

483. Casualties will be collected and cleared by stretcher bearers. A systematic search of the battlefield must be made to ensure that no wounded man is overlooked.

Action after Reorganization

484. After an attack, there is a natural tendency for a reaction to set in. This is dangerous as the enemy may counter attack and there is much to be done. The platoon may be called upon to send out aggressive patrols to help dominate No Man's Land and more work will be necessary on the defensive positions. On the administrative side, attention should be given to such points as cleanliness of weapons, ammunition supply, feeding, personal hygiene and all the normal actions taken in defence.

485. The platoon commander is also responsible for the protection of any tanks, anti-tank guns or MMGs which are ordered to occupy positions in his platoon area and for any other assistance they may need without prejudice to his own defence requirements.

SECTION 66.—THE ATTACK UNDER NUCLEAR CONDITIONS

Introduction

486. The threat of nuclear fire makes it undesirable and generally impossible to concentrate troops on a narrow front for a limited break-through. Attacks in support of tactical nuclear strikes will be more like reconnaissance in force on a broad front. Mixed groups of tanks and infantry in APCs will carry out these attacks supported by self-propelled artillery. The aim will no longer be to capture ground but to destroy the

enemy in a given area. The attacking forces will penetrate the enemy position to the limit of supportable depth to destroy his control HQ and nuclear weapon sites. They must also mop up enemy in the crust of the defence who have survived our nuclear strikes.

487. Within the battalion, the basic formation for the attack will be the company group. This will usually comprise a company, support weapons, tanks and FOO. The composition will of course vary according to the ground, type of operation and likely enemy opposition.

Radiation

488. After a nuclear explosion, the ground may be contaminated by residual radiation especially if the explosion was a low air or surface burst. A monitoring team will therefore move with each company to check the level of radiation in the area through which it is moving. This information enables platoon and company commanders to decide, quite simply, whether to go through or go round. Contaminated running water beyond the area of contaminated ground may present a hazard both in the use of the water and in fording. The permissible dose for each operation will be laid down in orders.

489. APCs can drive through a contaminated area as long as they do not loiter there and provided that all troops wear respirators if conditions are dusty.

Briefing and orders

490. The platoon commander may not be able to make a reconnaissance and little time may be available for preparations. It will be unacceptable to concentrate troops for a company briefing and even platoon briefing may not be possible. Section commanders and individual soldiers will have to use a good deal of individual initiative in these conditions. It is therefore essential for the platoon commander to give clear orders and to keep his men well informed of the situation. He must be able to pass short clear orders over the wireless to his section commanders.

491. To assist in control during mobile operations, orders will include an axis, a number of report lines and boundaries if necessary. When the platoon crosses a report line, the platoon commander will tell the company commander on the wireless.

Support

492. It will rarely be possible to launch an attack in APCs without tank support. If the country and the degree of opposition allow infantry to advance in APCs, some tanks should

lead. Without tanks, APCs are helpless against enemy tank attack. Tanks are also essential to give covering fire during the infantry's final dismounted assault and to deal with long range opposition.

493. Before an advance to contact, nicknames should be given to certain features and these will be used as reference points for infantry/tank target indication. Other reference points should be agreed during the advance. Inter-communication should be easy as platoon and tank commanders will be on the same mounted wireless net.

494. Some non-nuclear artillery will be available to support the attack. A number of on call targets will be selected beforehand and the platoon commander must have these marked on his map. There will probably be an FOO on the company net.

495. Of the support weapons, the 3-inch mortars will be valuable for dealing with difficult opposition. The MFC will normally travel with the company commander.

The advance

496. If possible, some tanks will lead. In close country where enemy anti-tank weapons are expected, infantry may have to dismount to clear the way for tanks. Wherever possible, difficult country like this should be by-passed as the objective must be reached quickly.

497. Ideally the advance should be across country with the APCs spread out to the limit of the platoon commander's control. Platoon and section commanders must map-read so that they always know their location. When operating a platoon wireless net, the platoon commander will control the spacing and formations and there will be no need for any flag or hand signals. To save traffic when a company net is operating, visual signals may be required.

Wireless

498. Orders will often have to be given and ground pointed out over the wireless while on the move. It is therefore essential for platoon and section commanders to listen on the wireless all the time. There will be many more out-stations on the company net than before.

The assault

499. When the opposition is weak, the platoon will motor close up to the objective. The platoon commander will give any necessary quick battle orders for the assault over the wireless and the platoon on dismounting will charge straight in.

500. The APC is thin-skinned: to use it as a tank against strong opposition would be wrong. Troops are vulnerable to small arms fire when dismounting, even under cover of smoke. With a strong or determined enemy, it is better to dismount in an FUP out of view behind a smoke screen or under cover near the enemy position.

501. When the platoon dismounts, the APCs will stop to drop their sections as nearly as possible in their assault formation. The troops will then dismount quickly. Section commanders will position themselves so that they can hear any quick additional battle orders that may be necessary. The platoon sergeant will organize the sections in the assault formation given out by the platoon commander before dismounting. Section commanders will give their orders as they move in to assault. This procedure must be practised until it can be done really fast; all movement will be at the double.

502. When two platoons are to assault together, the procedure will be much the same but the company commander will co-ordinate the attack. Covering fire will nearly always be given by tanks to both platoon and company attacks. A section or a platoon respectively may be used to thicken up the supporting fire.

503. As soon as the enemy position has been cleared, the platoon commander will call up his APCs. He can either do this through the company commander or direct to his own APC. Whenever a platoon leaves its APCs, it will open up on the company dismounted net. The company commander's and platoon commanders' APCs will also open up on this net.

Exploitation

504. The exploitation phase is particularly important. Exploitation will often spread over a wide area. It may entail the platoon remounting and carrying out crash actions in their APCs. Enemy nuclear fire can be expected so the platoon must spend the minimum time exposed in the open. Platoon commanders must know and remember the aim of the commander directing the operation. *They must act with speed and boldness.*

Reorganization

505. Whether the platoon will dig in depends on the length of time it is to stay in the new position. The platoon commander will receive definite orders on this point from his superiors. In any case all except the minimum sentries will stay either in the APCs or under the best protection available.

506. Sections may be sited well apart if observation over a wide area is required but normally they will be together in a platoon area. APCs will then be at least 100 yards apart and facing outwards so that they can move off quickly. They will be camouflaged and if possible sited in a fold in the ground or in a place where they get cover from observation and fire.

SECTION 67.—DRILL FOR ATTACKING A STRONG-POINT OR PILL BOX

507. The drill for attacking a strong point or pill box will be similar to the one used for house clearing explained in Chapter XVI, Section 87. Supporting fire from tanks or armoured vehicles RE is desirable.

508. If there are several pill boxes which are mutually supporting, the best chance of success lies in a simultaneous attack against all of them. When this is not possible, the other strong points will have to be neutralized by fire and smoke. At least a platoon is normally required to clear each strong point.

509. If a tank is available, it will use its main armament to make the entry hole. It will follow this up with heavy fire from its machine gun. The entry-men will then throw grenades into the strong point after which it will be cleared in the same way as a house.

510. In the case of a pill box with thick concrete walls, the tank will fire solid shot which makes only a small hole but will probably kill the enemy inside.

511. Without the help of a tank, the platoon should use its rocket launcher against the pill box. Then covering fire should be aimed at the loopholes and the entry-men should toss grenades through them. The platoon should then try to enter to mop up. Explosives may have to be used to force an entry.

CHAPTER XII

THE NIGHT ATTACK

"Control, navigation, surprise".

SECTION 68.—GENERAL

512. The surprise gained by night operations is an important means of offsetting enemy superiority in numbers, aircraft or equipment. Under nuclear conditions, surprise is essential and almost all movement and a high proportion of attacks will take place at night. Owing to the difficulties of control in darkness, it is necessary to study the night attack thoroughly and to spend a high proportion of training time on night operations.

Advantages

513. (*a*) The main advantages of a night attack is the cover afforded by darkness which makes it difficult for the enemy to use observed fire.

(*b*) Local surprise may be achieved, an important consideration especially in nuclear warfare.

(*c*) A night attack may adversely affect enemy morale.

Disadvantages

514. (*a*) It is more difficult to exercise control, especially at platoon level. It is not easy to keep direction and formation in the dark, especially over rough or undulating country.

(*b*) To enable control to be maintained, plans tend to be more rigid than for daylight operations.

(*c*) Tank co-operation is limited.

Stages

515. In the night attack under non-nuclear conditions there may be seven stages, some of which are concurrent. They are:—

(*a*) Action in the concentration area and the move to the assembly area including reconnaissance, planning and orders.
(*b*) Action in the assembly area and the move to the FUP.
(*c*) Action in the FUP.
(*d*) Breaching.
(*e*) Assault.
(*f*) Exploitation.
(*g*) Reorganization.

THE NIGHT ATTACK UNDER NON-NUCLEAR CONDITIONS

SECTION 69.—ACTION IN THE CONCENTRATION AREA AND THE MOVE TO THE ASSEMBLY AREA

516. The Warning Order for the night attack will probably be received by the battalion in its concentration area. As part of its normal battle procedure (described in "The Infantry Battalion in Battle", Code No. 8716), harbour and navigation parties are prepared and assembled.

517. The concentration area may be anything from five to fifteen miles in rear of the assembly area. It is the last place where the platoon can make major administrative arrangements. Thereafter, the platoon will move within the battalion order of march for tactical deployment for the attack.

Move to the assembly area

518. Whether the move is in transport or on foot, the route will be marked and lit by the battalion harbour party. Guides will meet companies at the debussing point.

519. Debussing drill must be practised so that troops can move into an assembly area quickly and in the correct order of march. Men must move quietly and smoking should be forbidden at this stage.

SECTION 70.—ACTION IN THE ASSEMBLY AREA AND THE MOVE TO THE FUP

520. Orders for action in the assembly area at night must cover the following points in addition to those mentioned in Chapter XI:—

(*a*) Smoking.
(*b*) Noise: this carries a long way at night.

521. Noise, lights and movement must be kept to a minimum. The time spent in the assembly area depends on such factors as the time of the attack and the distance involved; it may vary from minutes to hours. The platoon should be dressed and ready in all respects to move forward to the FUP five minutes before the appointed time.

The move to the FUP

522. At the appointed time, the platoon will leave the assembly area and move through a battalion check point on the route to the FUP. This route will have been taped and lit by the Intelligence Officer's party.

Formations

523. These will be influenced by local conditions. Usually the most suitable formation is staggered single file. If there is any delay, the platoon should be dispersed tactically to meet any surprise attack. The men should lie down to avoid casualties from enemy fire. This drill should be rehearsed in the concentration area with the emphasis being laid on good fire positions for the LMG.

524. On arrival, the platoon will be guided to its exact position in the FUP. Platoon and section commanders must ensure that their men arrive deployed in the correct order of march. Figure 5 shows the movement into the FUP of the right assault platoon of the right assault company. The diagram illustrates the importance of the platoon moving from the assembly area in the correct order of march for ease of forming up.

The FUP

525. Ideally the FUP should be open, square to the objective and out of view of the enemy. It must be protected and will often be within the FDLs of another battalion.

526. On arrival in the FUP the platoon commander should:—

(*a*) Note the time of arrival so that he is ready when the time comes to move.
(*b*) Check that the platoon formation is correct.
(*c*) Order his men to lie down.
(*d*) Insist on absolute silence.
(*e*) Take his compass and check the bearing for the advance.

SECTCION 71.—THE ASSAULT

Signal to advance

527. At H—1, a signal is given by the navigating officer. This is usually a light masked from the enemy. At H hr, a second light signal is given, usually a different colour. The assault platoons then cross the start line, which is usually the taped forward edge of the FUP, and advance at a steady pace.

Rate of advance

528. The rate of advance will be as quick as possible but will vary considerably with the visibility and the going. It is important that the planned rate of advance is maintained because the timing of the supporting fire programme is directly related to it.

Assault formations

529. The formation adopted depends on how dark it is. If there is an obstacle to cross, file or single file are probably the most suitable until the obstacle is reached. Dispersion will depend on visibility; each man in the platoon must be able to see the man next to him and keep station accordingly.

Navigation

530. On occasions when the company objectives are close together, the Intelligence Officer and his party advance in the centre and slightly ahead of the assault companies. His role is to check the direction and ensure that the correct pace of advance is maintained by the assault companies. Their tasks are:—

(*a*) To act as an additional check on the direction of the attack with the aid of compasses or other means.
(*b*) To check the distance covered by pacing.
(*c*) To mark the centre line as they advance by running out tape.

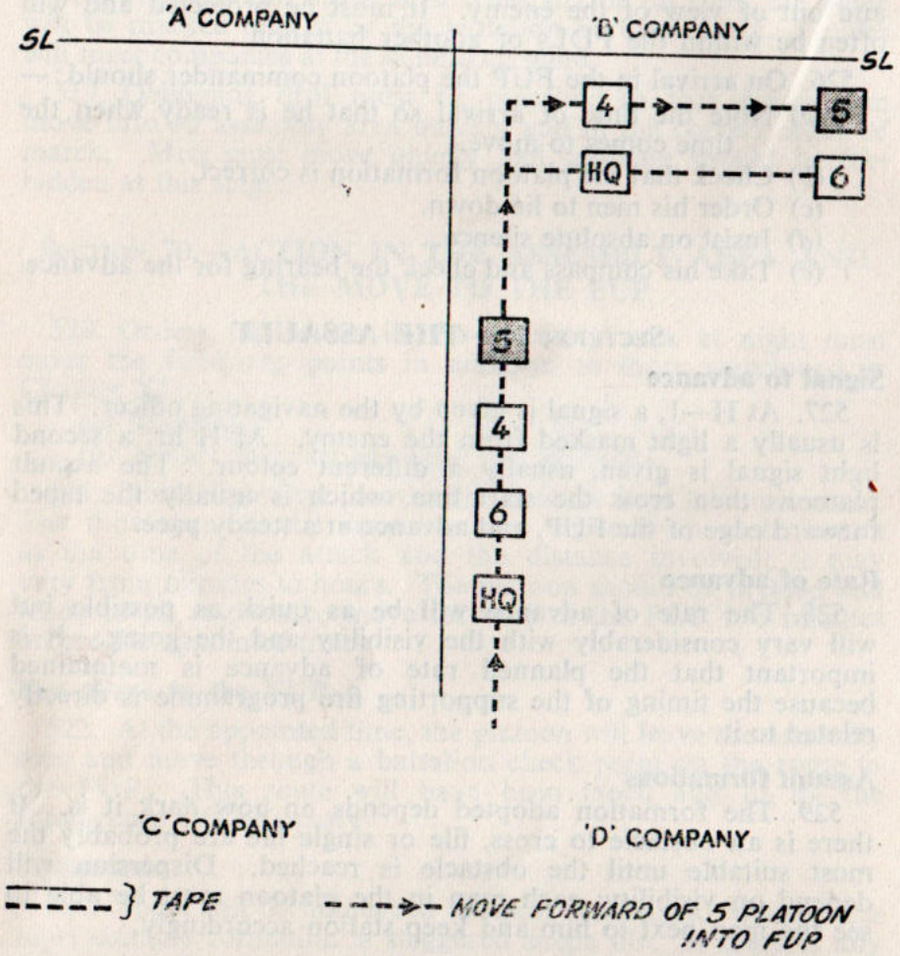


FIG 5.—Move up to FUP of right assault platoon of "B" company (6 platoon)

It is not the task of this party to lead the battalion physically into the assault itself. It is the duty of all sub-unit commanders both to navigate for themselves and to keep station on the navigating party.

Use of centre line

530A. The centre line is marked by shaded lights and white tape laid by the Intelligence Officer and his party. It should not be regarded as a navigational aid to the assault companies but is useful:—

(*a*) To guide F echelon vehicles following that route.
(*b*) To guide reinforcements forward.
(*c*) To guide runners either forward or back.
(*d*) To guide casualties to the rear.
(*e*) To indicate a cleared path through mined areas in the initial stages.

Wireless

531. Wireless sets are netted in the concentration area. If wireless silence is to be observed, platoon commanders will be given clear orders as to when it may be broken and how it will be lifted.

Enemy opposition

532. Opposition to the front must be dealt with by assault platoons. It will not be by-passed. Close flank interference should be dealt with by the reserve platoons of the assault companies. If the task is too big for a platoon, a reserve company will be committed. Everything will be done to prevent flank interference from slowing down the assault platoons and thus weakening the momentum of the attack.

SECTION 72.—BREACHING AN ENEMY OBSTACLE (WIRE AND/OR MINES)

533. Ideally infantry and vehicle lanes should be made in an obstacle in time to allow assault companies and F echelon transport to pass through without halting. If this is not possible, assault companies have to be halted sufficiently far back from the obstacle to avoid enemy DF tasks.

534. Obstacles may be classified as:—

(*a*) Those of no great depth and density which have been hurriedly prepared.

(*b*) Those of greater depth and density requiring a preliminary clearance operation which can be carried out the same night. This type of obstacle cannot be breached without outside support.

(*c*) Major obstacles which cannot be breached the same night and call for considerable outside support.

535. Hurriedly prepared obstacles will be dealt with by Bangalore Torpedo teams provided in each assault company by the reserve platoon. The teams will advance sufficiently far ahead to blow their lanes without assault platoons needing to halt. A detailed description of this type of operation is given in "The Infantry Battalion in Battle". If Baby Vipers are available, similar teams from reserve platoons will be required.

Crossing the obstacle

536. The platoon commander will himself lead the platoon through its lane in the obstacle. They should run through in file or single file taking the obstacle in their stride. The risk of casualties from mines must be accepted. Once through the lane, sections must shake out quickly into their pre-arranged assault formations. Sections will close with the enemy trenches at the double, firing their weapons, making as much noise as they please and using the bayonet.

537. At this stage the platoon commander will have to shout to keep control. Section commanders must lead their men onto their objectives. They must not allow them to rove about and they must not go farther forward than the limit of the objective laid down in the platoon commander's orders. Section commanders must search their objectives thoroughly to clear them of living enemy before reorganization begins.

Section 73.—EXPLOITATION

538. As in the deliberate attack by day, assault company commanders will exploit forward with patrols as soon as their objectives have been secured.

539. Such patrols must go forward as soon as possible to give warning of enemy preparations for counter attack. They must be quite clear about the task they are required to perform.

Section 74.—REORGANIZATION

540. The platoon will reorganize in the area originally laid down by the company commander, subject to any adjustment dictated by the ground or the location of the enemy trenches. The procedure for reorganization is given in detail in Chapter XI (The Deliberate Attack).

541. If the enemy's trenches are not to be occupied, it is very important to begin digging without delay. When the platoon commander sites new trenches he must guard against a natural tendency to put them too close together. As a precaution, he should roughly pace the distance between trenches and sections. He must also allot arcs of fire for each trench. If necessary, any positions which are still too close together must be readjusted at first light.

542. It is important to site section sentry positions (usually two men with the LMG) forward of each position and away from the noise of the digging.

543. The importance of immediate digging in on the objective is again emphasized. Every soldier must be made to understand that only by this means can he protect himself from the enemy's fire which will certainly be brought down on the captured objective. It is also essential to take full advantage of the cover afforded by the remaining hours of darkness.

544. The platoon must be prepared to help MMG sections or anti-tank detachments located in its area for the reorganization phase. Their presence will strengthen the platoon position and may prevent it from being overrun.

UNDER NUCLEAR CONDITIONS

Section 75.—THE NIGHT ATTACK UNDER NUCLEAR CONDITIONS

Introduction

545. Under nuclear conditions practically all tactical moves will be made at night. Because of the difficulties of control during darkness, we may often attack at first light; the night attack will, however, be a much more common operation than in the past. The attack may be either in APCs or on foot.

The attack in APCs

546. A night attack with APCs will be very similar to the daylight attack described in Chapter XI Section 66. The main differences will be:—

(*a*) Various scientific devices in the APC will make possible a long cross country drive at night in open formation at a reasonable speed.

(*b*) On dismounting, platoon and section commanders will suddenly be separated from their scientific eyes and control will be extremely difficult. Sections must immediately close in to within easy voice control by the platoon commander: each man must be able to see the next man.

(*c*) Unexpected enemy will often be met. This will lead to quick actions which will call for presence of mind and speed of action by both the section that is fired at and by the platoon commander.

The attack on foot

547. A night attack may also be carried out on foot if the noise of APCs is considered unacceptable. This may often be the case in a long range infiltration operation aimed at important targets such as nuclear weapon sites. Although men will be exposed to the full effects of a nuclear explosion for a considerable time, it will allow a far greater measure of surprise. Success will depend largely on surprise achieved through the silent approach.

CHAPTER XIII

WITHDRAWAL

" We are not retreating. . . . We are forbidden by regulations to retreat. . . . We are conducting a mobile defence. . . ".—Mikhail Mikhailovich Koriakov.

SECTION 76.—PRELIMINARIES

Information required

548. If a withdrawal is to take place, the commander of a forward platoon will need to know:—

(*a*) Who will order him to withdraw.
(*b*) Where he is to withdraw to.
(*c*) The time when he may begin to thin out.
(*d*) The time up to which he must deny his position to the enemy.
(*e*) The time by which he must be clear of any line.
(*f*) The position of troops through which he is to withdraw.
(*g*) The route to the company check point and RV. Troops using this route must not mask the fire of troops holding a position in rear.
(*h*) The withdrawal plans of covering parties, supporting tanks and troops on the flanks.

Orders and briefing

549. As well as full details of timings, routes and positions of other troops, the following matters must be included:—

(*a*) A warning against alarmist rumours.
(*b*) A warning against leaving behind anything of value to the enemy such as ammunition, papers, marked maps or stores of any kind.

Reconnaissance

550. A reconnaissance of the new position and the withdrawal routes should be carried out if possible. Under non-nuclear conditions the reconnaissance of the new position is usually done by the platoon sergeant who goes back with the other platoon sergeants of the company under an officer. The officer is usually the company second-in-command but may be a reserve platoon commander. The sergeant must take with him one or more guides to meet the platoon when it arrives and take it to its new position.

551. The platoon commander and, if possible, the section commanders, should walk and memorize the route back to the company check point and RV; this will probably be behind the reserve platoon position.

552. The platoon commander must select a platoon RV at which his sections will gather before moving on to the company RV. The platoon RV should be close behind the platoon position with cover from enemy fire and observation. Section commanders must walk and memorize the routes from their positions to the platoon RV.

SECTION 77.—THE CONDUCT OF THE WITHDRAWAL

553. It will not be easy to make a clean break if surprise is lost or the enemy is pressing closely. The platoon must continue all its usual activities until the last possible moment; this includes normal wireless traffic. The total volume of fire from the platoon area should not seem to lessen until the position is finally given up. At the same time, any marked increase in fire may draw the enemy's attention to the position and lessen the chances of making a clean break.

554. There is always a danger of enemy infiltration and this would be particularly unwelcome at the time of a withdrawal. Patrolling will therefore be important and under non-nuclear conditions, reconnaissance patrols will be sited to cover gaps and give early warning of enemy approach.

By night

555. When a platoon withdraws from a position at night under non-nuclear conditions, the first to leave will usually be the reserve section or sections and platoon HQ less the platoon commander, wireless operator and runner. These troops withdraw to the platoon RV where they wait for the rest of the platoon. The forward sections or section then withdraw. Each section should move complete under its commander. The

platoon commander will always be the last to leave the position. When he has satisfied himself that everyone else is clear, he will join his platoon at its RV and lead it to the company RV.

556. Under nuclear conditions, the whole platoon will probably withdraw at the same time in APCs to a platoon RV. Orders for the withdrawal to begin will be given by the company commander. The withdrawal will nearly always take place at night.

By day

557. A deliberate daylight withdrawal is usually only undertaken when the enemy lacks air superiority. When a platoon is in contact with the enemy, its forward sections usually withdraw first; the reserve section stays in position until it has covered their withdrawal. Under nuclear conditions platoons will be required to withdraw under pressure from enemy air and ground forces by day or night as part of a higher commander's mobile defensive plan. An aggressive spirit and the element of surprise will help in the conduct of such an action.

558. Forward platoons will probably withdraw covered by the fire of reserve platoons and all available supporting weapons. These will include artillery and 3-inch mortars. An FOO and MFC will usually be with the company commander. Tanks and MMGs may also support the withdrawal.

559. It may be necessary for forward platoons in turn to take up an intermediate position to cover the withdrawal of reserve platoons. This leapfrogging will be repeated until a breakaway has been achieved. In the withdrawal, commanders at all levels must try to avoid a running fight and if the enemy is hit hard the first time he succeeds in closing, he will be less likely to press the withdrawal thereafter.

560. Withdrawal by leapfrogging platoons is especially effective if APCs are used. The platoon will wait for the enemy in an ambush position. The APCs will be out of sight but as close behind the position as possible. Fire will not be opened until the leading enemy are close enough for a certain kill. When the enemy begins to deploy or threatens the position, the platoon will:—

(*a*) Withdraw to their APCs using fire and movement.
(*b*) Embus, covered by smoke if necessary.
(*c*) Withdraw to another position behind the next platoon in rear.

561. Under nuclear conditions it will often be necessary to withdraw. The aim will be to delay the enemy. By causing him the maximum casualties, he will be made to concentrate

and offer a target for our nuclear fire. Accurate reporting of information as soon as it is obtained will therefore be a most offensive action in such a withdrawal. If all ranks understand this there is less danger of their morale being lowered by the withdrawal.

CHAPTER XIV

RELIEF IN THE BATTLE AREA

"If I had such splendid men, I should take better care of them than you do".—Hyder Ali, of the British soldier.

SECTION 78.—GENERAL PRINCIPLES

Introduction

562. Relief in the battle area is one of the commonest operations in war. While it is in progress, both the incoming and outgoing units have many troops in the forward area at the same time. This not only increases their vulnerability but if the enemy attacks, command and control are difficult to exercise. In the interests of morale, troops' first introduction to a new area should be conducted calmly and with speed and efficiency. In this chapter the relief under nuclear and non-nuclear conditions is considered separately.

Aim

563. At platoon level, the aim is to relieve another platoon without the enemy's knowledge, at the same time maintaining the position intact. The aim is similar at all levels throughout the battalion.

564. If this aim is to be achieved, there must be:—

(*a*) Secrecy.
(*b*) Speed.
(*c*) Normal noise and activity.
(*d*) Control.

Secrecy

565. The enemy must not be given any inkling that the relief is to take place or is taking place, otherwise he can be expected to re-act violently and heavy casualties to our troops may result. The most usual ways of losing secrecy are:—

(*a*) Too much movement and poor battle discipline by the advance party.
(*b*) Bad wireless discipline, especially when the relief is in progress.

Speed

566. The shorter the time men of both units are in the position together, the better. A speedy relief demands a thorough knowledge of the relief drill by commanders at all levels. In the platoon, simple but detailed orders must be given to the men so that they all understand what they have to do and how to do it.

Noise

567. Night operations call for silence. Noise travels a long way at night and it is the most likely way to lose secrecy and draw enemy fire. The need for silence may even outweigh the need for speed. Arrangements for control must therefore be such that silence is not broken unnecessarily.

Control

568. Good control is the basis of secrecy, speed and silence. It will be decisive should the unexpected happen. Careful thought must therefore be given beforehand to the preparation of detailed orders covering all such matters as guides, check points, route marking and movement in transport and on foot.

Daylight reliefs

569. A relief operation will almost invariably take place at night. The only possible occasions for a daylight relief would be:—

(*a*) When we have air supremacy and the position to be relieved is out of sight of the enemy, for example, on a reverse slope.

(*b*) When the country makes a night relief too difficult

RELIEF UNDER NON-NUCLEAR CONDITIONS

SECTION 79.—PLANNING AND PREPARATIONS

Warning Order

570. A battalion can usually expect to receive its Warning Order about 48 hours in advance. The platoon commander is given all available information by his company commander. After passing this on to the sergeant and section commanders, he or perhaps the sergeant is required to go forward with the advance party. Whenever possible, the platoon commander and runner should go forward to see the ground in daylight.

Advance party duties

571. The duties of the platoon commander in the advance party are:—

(*a*) To live with his opposite number in the battle area and get the maximum possible information about the position and the enemy.

(*b*) To make sure that all the necessary arrangements are made to enable the relief of the platoon to be carried out swiftly and smoothly.

572. In this situation, both the platoon commander and his runner should try to combine inquisitiveness and tact. The platoon commander should list all the points on which information is needed before he leaves with the advance party as there are far too many to carry in his head. They include:—

(*a*) Enemy forces:—

(i) Opposing units/formations.
(ii) Known locations.
(iii) Minefields, wire and obstacles.
(iv) Known DF areas.
(v) Shelling.
(vi) Habits.
(vii) Patrol activity.
(viii) OPs.
(ix) Morale.
(x) Probable intention.

(*b*) Friendly forces:—

(i) General layout of the battalion with special regard to flanking platoons.
(ii) Detailed dispositions for the platoon, including the number of fire trenches for each section.
(iii) Section arcs of fire.
(iv) LMG fixed lines and arcs of fire.
(v) Rocket launcher arc of fire.
(vi) Likely tasks for the light mortar.
(vii) Positions of trip flares.
(viii) Position on the ground of DF and DF (SOS) tasks and how they are called for.
(ix) Position and tasks of any support weapons in the platoon locality or firing across the platoon's front and how this support is called for.
(x) Range cards.
(xi) Maps and air photographs.
(xii) OPs and details of patrols out.

(xiii) Wire, obstacles and minefields, and gaps and lanes through them.
(xiv) Approaches and dead ground.

(*c*) Administration and logistics.

(i) Reserve ammunition.
(ii) Defence stores: extra wire and mines.
(iii) Casualty evacuation.
(iv) Water supply
(v) Feeding arrangements including reserve rations.
(vi) Sanitary arrangements.

(*d*) Command and signal

(i) Track plan and runners' routes.
(ii) Location of neighbouring platoon HQs, company HQ and battalion HQ.
(iii) Position of lines if laid.
(iv) Light signals.
(v) The alarm signal for enemy air, gas or nuclear attack.
(vi) Inter-trench communication system.
(vii) Outgoing unit's password.

Platoon preparations

573. While the platoon commander is away with the advance party, the platoon sergeant must ensure that the normal administrative preparations are completed. These include bathing, provision of canteen supplies, inspections and replacing deficiencies.

574. The platoon commander will do as much of the briefing as possible before he leaves with the advance party. He will not usually be able to return to do any final briefing which will normally be done by the company second-in-command to the whole company. The following must be included:—

(*a*) An explanation of the ground together with the procedure for relief and the system of check points.

(*b*) Action if attacked.

(*c*) What to do and what to expect in the way of lights and shelling.

(*d*) Emphasis on silence, keeping contact with the man in front and speed.

575. Rehearsals should include:—

(*a*) Debussing.

(*b*) Taking over platoon and section localities in detail.

SECTION 80.—RELIEF PROCEDURE

576. The arrangements for control of the relief are considered under the following headings:—

(*a*) System of control points and guides.
(*b*) Action in platoon and section localities.
(*c*) Communications.
(*d*) Protection during the relief.
(*e*) Change of command.

System of control points and guides

577. Four control points in the battalion area affect the platoon:—

(*a*) The debussing point: if the initial move is in TCVs, this point will be as far forward as possible without giving away secrecy through the noise of vehicle engines. The company with its supporting detachments will arrive under the company second-in-command. The point will be marked by lights. An officer and a protection party from the incoming battalion will be on duty nearby. A guide from the outgoing battalion will be allocated to lead the company group forward or to a dispersal area if there is any hold-up. This debussing drill must be rehearsed paying regard to:—

(i) Embussing in reverse order to the order of march from the debussing point forward.
(ii) Which side of the vehicle men are to get out.
(iii) Debussing under shell fire.

(*b*) Battalion check point: this is set up so that the Commanding Officer can check the progress of the relief. If there is any hold-up, a dispersal area is allotted for use but usually there is no halting at this check point and companies march straight through.

(*c*) Company check point: this is where the advance party, usually the platoon commander and his runner, waits for the platoon. Also waiting at the company check point are:—

(i) The company commander and his batman.
(ii) The other platoon advance parties.
(iii) A guide for each platoon from the outgoing battalion.
(iv) NCOs in command of support weapons in the company area.
(v) The CSM from the outgoing company who will be in charge of this point.

(*d*) Platoon RV: this will be close to platoon HQ. The platoon commander or sergeant must know the route to this RV from the company check point and he must have picked a platoon dispersal area for use in the event of a hold-up. On the move to the platoon RV, the guide should lead and the platoon commander or sergeant should move behind the leading section to reduce the chances of the guide and himself becoming casualties at the same moment. The sergeant or platoon commander should check the platoon through the company check point and bring up the rear. At the platoon RV, guides from the outgoing platoon meet each section. There is no halting; sections are led off to their respective positions.

Action in platoon and section localities

578. (*a*) Before the platoon arrives, the advance party gives the names of the men in each section to outgoing section commanders, arranging with them which trenches they are to occupy. The outgoing section commander leads the incoming section to their trenches in pairs or fours as the case may be.

(*b*) On reaching the trenches, the incoming men at once occupy shelter trenches so as not to stay exposed above ground. These must be clear of kit belonging to the outgoing section which will be standing to throughout the relief.

(*c*) Both section commanders then go to each trench in turn; the outgoing section commander briefs the incoming troops on their arcs of fire and any other important detail all of which must be noted by the incoming section commander.

(*d*) Next, all incoming section commanders report to their platoon commander that they are ready to take over. The platoon commander informs his company commander and asks permission to complete the relief.

(*e*) When this is given, the two platoon commanders stay at platoon HQ ready for any emergency while the two platoon sergeants together go round each section in turn, ordering outgoing sections to withdraw to the platoon RV.

(*f*) When this has been done, the platoon sergeants will report to their platoon commanders and the outgoing platoon commander with his HQ will move back to the platoon RV. His platoon will not wait there longer than is necessary to ensure that it is complete before moving on to the company check point and company RV.

(*g*) After the outgoing platoon have left, the incoming platoon commander will report that the relief has been completed to his company commander.

(*h*) When the relief has been completed, the incoming platoon commander will send two runners to company HQ. One will stay, the other will come back. This ensures that at least two men know the routes. The runner to come back will usually be the one who was with the platoon commander on the advance party.

(*j*) The incoming platoon will continue to stand to until the company commander orders it to stand down.

Communications

579. (*a*) There are three means of communication available during the relief and they should be used in the following order of priority:—

(i) Line.
(ii) Outgoing battalion's wireless net.
(iii) Incoming battalion's wireless net.

(*b*) Wireless traffic must be kept at the normal level so as not to lose secrecy. When this cannot be ensured, traffic must be confined to the outgoing battalion's net which is already known to the enemy.

(*c*) On company nets, there will be two companies on each channel; one from each battalion. The outgoing unit should use short call-signs throughout and the incoming unit should use long call-signs.

(*d*) The incoming battalion must keep wireless silence for as long as possible and rules for breaking wireless silence will be laid down and must be strictly observed.

Protection during the relief

580. Before the relief, the incoming battalion arranges for the protection of its debussing point and check points. Protection for the relief itself is given by reconnaissance and fighting patrols:—

(*a*) Reconnaissance patrols are located within the defence perimeter. They can be changed over during the relief in company areas after the incoming platoons have taken over. If possible, however, these patrols should go forward with the advance party and be in position before the main relief begins.

(*b*) Fighting patrols:—

(i) Responsibility for providing these lies with the outgoing battalion unless the Commanding Officers agree otherwise.
(ii) They should stay out all night and rejoin their own battalion next day.

(iii) Sometimes these patrols will come from the incoming battalion. In all such cases, patrol commanders and members of the patrol must go forward with the advance party and be given the usual opportunities for reconnaissance and briefing. It is helpful if these patrol commanders can go out the night before with a patrol from the outgoing battalion so as to get to know the ground.

Change of command

581. The arrangements and time for the change of command are agreed between the Commanding Officers before the relief takes place and orders for it are issued down to platoons. Command normally passes at each level as follows:—

(*a*) Platoon: when all three sections have been relieved.

(*b*) Company: when two or more platoons, including the forward platoons, have completed relief.

(*c*) Battalion: when two or more companies, including the forward companies, have completed relief.

UNDER NUCLEAR CONDITIONS

SECTION 81.—RELIEF UNDER NUCLEAR CONDITIONS

582. Secrecy, speed, silence and control retain their importance during relief under nuclear conditions. The procedures described in Section 77 will be adapted to meet local tactical and ground conditions.

583. The enemy must not be presented with worthwhile nuclear targets. It may therefore be necessary to relieve platoons individually within companies so that at no time will there be a significant concentration in any part of the battalion area. Positions will be more dispersed and the relieving troops will have farther to go. The operation is therefore sure to take time and may have to be spread over more than one night.

584. During the relief men must remain under cover whenever possible. Commanders can do much of the handing and taking over either in an APC or under proper shelter. There must be no waiting about; sections should relieve each other independently. As soon as a section has been relieved it should go straight back to the platoon.

585. Restrictions may be placed on the use of APCs in forward areas as the noise of their engines might give the relief away.

586. The relief of either the rear companies of the forward battalions or the reserve platoons of the forward companies will present fewer problems. The incoming sub-unit will drive to suitable cover near the outgoing sub-unit. The incoming commander will then go to receive any essential information from his opposite number. As soon as they are satisfied, the outgoing sub-unit will drive away and the incoming sub-unit will drive in.

587. Heavy casualties from enemy nuclear strikes may make it necessary to replace a complete company or platoon. This is not a normal relief operation and it should be conducted as a reinforcement.

CHAPTER XV

CROSSING WATER OBSTACLES

"The fish below swam to and fro,
Attacked from every quarter;
'Why sure', thought they, 'the devil's to pay,
'Mongst folks above the water'".—

old American ballad.

SECTION 82.—EQUIPMENT

Introduction

588. A river crossing is a major operation not usually undertaken below battalion level. The whole operation is carefully planned and rehearsed beforehand. Further details may be found in "The Infantry Battalion in Battle, 1952" (Code No. 8716), Chapter XIV and in "Field Engineering and Mine Warfare, Pamphlet No. 8 (Code No. 8306), Part I". There is no firm doctrine yet on crossing major obstacles under nuclear conditions.

589. From time to time, platoon and section commanders may have to cross water obstacles, such as streams or canals, during a patrol or some similar operation. They must therefore know how to do this.

Boats

590. The assault platoon of the RASC Bridge Company holds water-crossing equipment of which the following types of craft are likely to be used in the platoon:—

(*a*) The Reconnaissance Boat, which is an inflatable rubber boat capable of carrying three men; it may be rowed or powered by a small outboard motor.

(*b*) The Assault Boat, Mark IV, which is made of light alloy and can carry thirteen men; it may be paddled or powered by an outboard motor. Two of these boats can be coupled together, stern to stern, or can be made into a raft.

Improvised equipment

591. There are times when it is not possible to take boats to cross water obstacles either because of their bulk and weight or because they are not available. In such cases the following improvised equipment may be used:—

(*a*) The groundsheet float, made from an ordinary groundsheet carefully folded and lashed around the personal equipment and weapon. Using this method, a swimmer can float his arms and equipment across a river. A non-swimmer can help himself across a water obstacle by using a second groundsheet float packed with straw or bracken.

(*b*) Cable: a cable or rope secured across a river, particularly if it is fordable, is a great help to men crossing the stream, especially if a strong current is running. If they are available, toggle ropes are suitable for this purpose. Signal cable slung between trees on opposite banks can be used to get light equipment over a stream on a simple pulley. The Energa Grenade can be used to get a light cable over a narrow water obstacle.

Details of these improvised equipments are given in "Field Engineering and Mine Warfare Pamphlet No. 8 (Code No. 8668), Part II".

SECTION 83.—WATERMANSHIP

592. The platoon commander should study and practice watermanship. It is recommended as an interesting change from the usual training routine.

593. Deciding where to cross and land and launching a boat into a stream call for knowledge of the effect of a current on a boat and of the characteristics of such features as banks, bends and pools. Handling a boat in a difficult current and landing on a steep bank both need careful training and practice.

594. Safety precautions must not be overlooked, especially in training. A guide to safety precautions is given in "Field Engineering and Mine Warfare, Pamphlet No. 8, Part I, Section 15".

CHAPTER XVI

FIGHTING IN BUILT-UP AREAS

"Draw thee waters for the siege, fortify thy strong holds".—Nahum iii, 14.

SECTION 84.—CHARACTERISTICS AND PRINCIPLES

Introduction

595. Built-up areas are often easy to defend and costly to attack. Cover from fire and from view enables small bodies of determined troops to hold out for long periods.

Characteristics

596. The main characteristics are:—

(*a*) Restricted fields of fire.
(*b*) Limited observation.
(*c*) Cover from fire and view.
(*d*) Streets invite movement but are readily covered by fire.
(*e*) Vehicle movement is restricted and canalised.
(*f*) Vehicles are liable to short range attack.
(*g*) Tanks may have to move closed down and will require close infantry protection.
(*h*) The close proximity of the opposing forces.
(*j*) Use of supporting weapons is limited.
(*k*) The possibilities of by-passing the enemy by going over or under him via rooftops, cellars or sewers.
(*l*) Intercommunication may be difficult. Some decentralization may be necessary and this calls for a high standard of initiative from junior leaders.

Principles

597. At platoon level, the principles of village clearing and street fighting are:—

(*a*) Control.
(*b*) Balance.
(*c*) Speed.
(*d*) Thoroughness.

598. The platoon commander should make a simple plan. He will achieve this by:—

(*a*) Choosing short bounds and limited objectives.
(*b*) Having firm bases from which all movement in the open can be covered by fire.
(*c*) Clearing his objectives thoroughly.
(*d*) Reorganizing rapidly.

SECTION 85.—SUPPORTING ARMS

Artillery

599. Artillery can be of little direct help to assaulting troops but is used to soften up an enemy held area before attack.

3-inch mortars

600. 3-inch mortars can be used to neutralize areas from which the enemy are likely to fire on assaulting troops as they approach the village.

Tanks

601. Tanks are usually employed in small groups such as a troop in support of a company. The infantry will lead as tanks in built up areas will be very vulnerable to enemy short range anti-tank weapons. Tanks will help by making entry holes for the infantry with their main armament and supporting the assault with their machine guns. They may also be used in village clearing to provide cut off fire.

602. The effectiveness of tank support is dependent on a good system of target indication.

Anti-tank guns

603. Apart from their usual role, anti-tank guns can also be used for making entry holes in walls and buildings.

Explosives

604. Demolitions will probably be necessary and pole charges will often be needed. Sappers and pioneers will not always be available as they will be busy on other tasks. Every platoon and section should therefore include men who have been trained to handle explosives.

SECTION 86.—DEFENCE OF A BUILT UP AREA

605. A large country house or a row of terraced houses may need a platoon or more to defend it. Depth will be easy to achieve but mutual support within the platoon may be difficult. Close mutual support may be expected with neighbouring platoons. Small detached houses can be defended by a section. Sections must be able to support each other and care must be taken to give some depth to the defence.

Advantages

606. The advantages of defending a house or building are:—

(*a*) Concealment, sometimes leading to surprise.
(*b*) Protection from small arms, artillery and mortar fire.
(*c*) Internal mobility.
(*d*) Shelter.

Disadvantages

607. These are:—

(*a*) Short fields of fire.
(*b*) Easily neutralized by smoke.
(*c*) Easily by-passed.
(*d*) Vulnerable to tank and anti-tank gun fire.
(*e*) Expensive in troops.

Siting weapons

608. Weapon sites may be found in the building itself, on the roof or in the grounds outside. Any weapons sited within the building must be kept back from the windows or holes through which they are to fire. Automatic weapons must stand on a surface which will not give off dust when they are fired. Weapons sited inside a building will have narrow fields of fire. It is the weapons sited outside the building which will have the main fields of fire. Soldiers manning these weapons need a covered line of withdrawal into the building to enable them to fight on for as long as possible.

609. At least two and if possible all three LMGs must be sited to give each other mutual support. The area over which their fire inter-locks should be the platoon's picked killing ground.

610. Single riflemen will be posted as snipers on roofs and under the eaves of buildings. The others should be posted in pairs outside or inside the building to cover all approaches. They should have plenty of grenades which are easy to drop on enemy below.

611. Any natural obstacles should be improved with wire and mines. Streets and lanes should be barricaded and covered by fire.

Control

612. Section commanders must be able to control their sections even if they have to move from one part of the building to another to do so. Within limits, men must be allowed to open fire at their own discretion. Any limits which the platoon commander or higher authority may lay down must be made clear to everyone.

Sequence of work

613. A lot of work is needed to put buildings in a state of defence. Some of the tasks involved are more important than others. The order of priority also depends on the time, tools, stores and labour available, but as a guide the following sequence is suggested:—

(*a*) Clear fields of fire.
(*b*) Knock glass out of windows.

(*c*) Nail chicken wire over window frames to keep out enemy grenades.

(*d*) Block all unused doors, windows and chimneys with sandbags and mattresses to stop the enemy getting in.

(*e*) Put up barricades in rooms well back from windows. Weapons can be fired from behind these and they will give some protection from grenades thrown by enemy house-clearing parties.

(*f*) Make loopholes in windows or walls to cover approaches. Sandbags should be used but some skill is necessary in siting as obvious loopholes in a bare wall are easily located and neutralized by the enemy.

(*g*) Shore up ceilings with timber and sandbags.

(*h*) Wire dangerous approaches.

(*j*) Make mouseholes as necessary between rooms and houses to allow freedom of movement inside.

(*k*) Get rid of inflammable material, turn off gas and electricity and fill the bath and available pans with water.

(*l*) Make small holes in upper floors to enable grenades to be dropped on enemy below.

(*m*) Remove or block stairs with wire or nailed boards.

(*n*) Make a few man-sized holes to allow men to go up and down between floors using knotted ropes or rope ladders.

(*o*) Put barbed wire inside windows angled to the floor to discourage enemy from diving in.

(*p*) Dig a crawl trench from a mousehole on the ground floor to serve as an emergency exit or to give access to trenches outside.

(*q*) Convert cellars or dig shelters with overhead cover.

(*r*) Dig positions outside if necessary for platoon anti-tank weapons. Alternative positions outside buildings are valuable and may also serve to deceive the enemy.

SECTION 87.—HOUSE CLEARING

614. All attacks on built-up areas involve gaining a foothold and then clearing the area methodically to prevent its re-occupation by the enemy as the troops advance.

615. Similarly, the operation of house clearing includes:—

(*a*) Making an entry.

(*b*) Clearing the enemy out.

616. Fighting in built-up areas is generally a junior leader's battle. The basic sub-unit for clearing a house is the section. It can only clear a small house of up to about six rooms. A large country house or a row of houses takes a platoon with its sections leap-frogging vertically or horizontally as the case may be.

Section organization

617. For house clearing, the section should be organized in two groups:—

(*a*) *Clearing group*—Section commander.
2 entrymen.
2 bombers.
1 lookout man.

(*b*) *Covering fire group*—LMG group.

618. The clearing group may need pole charges or fire from the guns of supporting tanks or anti-tank detachments to help them break in. They will also need HE grenades to clear rooms. Smoke grenades may be needed to cover the LMG group's move to a flank.

Clearing drill

619. (*a*) The section commander decides which wall is to be breached.

(*b*) The LMG group moves to a flank position where it can cover the point of entry and, if possible, provide cut off fire to kill any enemy who try to escape.

(*c*) The entrymen then throw an HE grenade and break in through a window or a breach. Doors should be avoided.

(*d*) The entrymen clear the room of entry and signal to the section commander when this has been done.

(*e*) The section commander then leads the rest of the clearing group in through the original point of entry.

(*f*) The lookout man stays in the first room and keeps visual contact with the covering fire group.

(*g*) The section commander and the rest of the clearing group then clear the other rooms in turn. The two bombers do the actual clearing while the entrymen guard the junction points such as the foot of the stairs while the ground floor is being cleared.

(*h*) When the house has been cleared, the section commander orders the LMG group to rejoin the section.

Minor tactics

620. (*a*) The first entry should always be made on a side covered by the LMG group or another section.

(*b*) The original cleared entrance should always be used by reserve sections going into the building.

(*c*) Whenever possible, buildings should be cleared from top to bottom. When the entry has to be made at ground level, the ground floor should be cleared first, then upstairs and lastly the basement or cellars.

(*d*) If necessary, lookout men and bombers should be changed as clearing proceeds.

(*e*) The operation should be carried out step by step, only one room being cleared at a time so that success is consolidated and control is kept throughout.

SECTION 88.—VILLAGE CLEARING

621. It is not easy for a platoon commander to see what is happening in a built-up area like a village. To exercise effective control, he must keep well forward.

622. Until it becomes necessary to put in a platoon attack, sections should be leapfrogged as rapidly as possible so that the enemy has no time to dig in or filter back. As one section moves forward to its limited objective, the platoon commander should be planning the action of the next section. He should aim to have one section clearing a house, a second covering it and the third in reserve. At this stage, time cannot be wasted in clearing each house, unless the platoon commander sees for himself that it is defended.

623. As each house is cleared, the section involved must report success to the platoon commander and reorganize at once. Snipers should be posted on the upper floor; the rest of the section usually take up fire positions in the garden or surrounds from where they can support the action of the next section.

624. When a platoon attack is necessary the platoon commander will need a quick O group. One section will normally act as fire section and will cover the chosen place of entry. The first assault section will go in with its entrymen leading in exactly the same way as for a section house clearing operation. The platoon commander will give this section a limited objective, such as the ground floor or one distinct part of the house. When this first section report success, the second assault section will go in at the same point of entry as the first and clear the rest of the building.

SECTION 89.—STREET FIGHTING

625. In this type of operation, two platoons may be working along opposite sides of the same street and this may add to the difficulties of control.

626. The platoon commander must first arrange covering fire for the leading section to enter the block he is to clear. The section must clear the first house, which is then made into a firm base. Men from this section should be posted so that they can cover the second section when it passes through them to clear the next house. It will be very helpful if they can also support the platoon clearing the other side of the street.

627. Sections may advance from house to house by mouse-holing through back gardens, sewers or over roofs but seldom along the open street exposed to enemy fire. Smoke or darkness may give cover from view but do not stop the enemy firing his automatic weapons on fixed lines.

628. The company commander will co-ordinate the progress of the platoon with that of the platoon clearing the other side of the street. Platoons will usually advance one at a time, each giving covering fire to the other.

629. Carefully sited snipers will help to stop enemy infiltration into houses already cleared. It may also be possible to isolate some buildings with fire, perhaps from supporting tanks or MMGs.

CHAPTER XVII

CLEARANCE OF SMALL WOODS

"No one point can have any great tactical strength, as we can never suppose a wood as absolutely impassable as a river or a morass".—General Carl von Clausewitz.

SECTION 90.—GENERAL CONDUCT

Introduction

630. An infantry platoon may often be called upon to clear small groups of enemy from isolated cover such as small woods. This may happen in defence or in the attack. This operation must not be confused with fighting in large woods or jungle for which there are other drills.

Enemy

631. Enemy in small woods may be:—

(*a*) Outposts.

(*b*) Isolated groups of airborne or parachute troops.

(*c*) A patrol lying up.
(*d*) A small force cut off during their withdrawal.
(*e*) Partisans lying up.

632. The enemy troops may be dug in. In most cases, their object is to stay in hiding. When cut off from their main force, their morale is likely to fall sharply if they are attacked quickly, methodically and resolutely.

633. The enemy disposition and probable re-action depends on the type of troops in the wood. If they are an outpost, the forward edge of the wood may be held in strength; if they are partisans, the forward edge may be lightly held and the rest of the enemy may be lying up in the middle of the wood.

Organization

634. Speed is essential, both in planning and execution. If there is any delay, the enemy may have time to slip away.

635. The platoon must be divided into three elements to carry out this operation:—

(*a*) *Stop element.* This is to kill any enemy trying to get away. Stops must be put out as speedily and secretly as possible in positions from which they can cover the flanks and rear of the objective with fire. They must stay out of sight of the enemy until fire is opened and then shoot anyone leaving the wood before the success signal goes up.

(*b*) *Beating element.* This is to clear the wood by driving the enemy from it. The beaters must be thorough or they will fail to flush their quarry. If the cover is thick, the distance between them must be cut down to three to five yards according to what is necessary to keep control. This is difficult but the success of the operation depends on good control and alertness of the beaters themselves.

(*c*) *Assault element.* This is to support the beaters and mop up any enemy who stay and fight in the wood.

SECTION 91.—PLATOON DRILLS

636. **Drill 1—Battle preparations**

The platoon will be divided into the three elements. A suggested composition is:—

(*a*) *Stops*:—
Commander—Platoon sergeant.
LMG groups of each section.
No. 1 mortarman.

(*b*) *Beaters*:—
Commander—Platoon commander.
Nos. 1 and 2 sections less LMG groups.
Platoon HQ less sergeant and one mortarman.

(*c*) *Assault*:—
Commander—No. 3 section commander.
No. 3 section less LMG group.

637. Each member of the assault element will carry extra HE and smoke grenades. Every member of the platoon will take the usual battle precautions. The platoon commander should arrange a success signal and make sure all the stops know what it is before they move off.

638. **Drill 2—Encirclement**

(*a*) The wood must be sealed off quickly. The platoon commander should form the beaters up opposite their side of entry. The platoon sergeant meanwhile should get the stops into their pre-planned positions.

(*b*) The beaters must form up out of sight of the enemy. They must keep out of sight until all the stops are in position. The stops themselves must keep out of sight until they have to open fire.

(*c*) The platoon sergeant must position the stops where they can kill any enemy leaving the wood.

(*d*) Stops should shoot anyone leaving the wood before the success signal goes up.

(*e*) When the wood has been cleared, the stops will cover the move of the rest of the platoon to the RV and then join them there when they are in position. The Platoon Commander must select the RV before the operation begins.

Drill 3—Gaining a lodgement

639. If the enemy is holding the forward edge of the wood, an attack will be necessary to gain a foothold in the wood and then fight outwards to clear the rear edge so that the beaters can line up.

640. The lodgement will be gained by the beaters and the assault element covered by the fire of at least one of the stops.

Drill 4—Beating

(*a*) Before the line of beaters begins its advance, the platoon commander should detail some men to look up into the trees as they go forward.

(*b*) Beaters will advance in an extended line controlled from the centre by the platoon commander. The assault element will be close behind (about 10-15 yards).

(*c*) The place through the wood must be that of the slowest man at any time, that is the man walking through the thickest undergrowth.

(*d*) Movement should be from tree to tree. Each man must search the ground in front of him carefully. The thickest undergrowth must be walked and easy routes should be avoided as serving no useful purpose.

(*e*) From time to time, the beaters at each end of the line should give a progress signal which the stops can see. This can be done by waving a flag at the edge of the wood.

(*f*) Whenever the line halts, beaters should keep their eyes and ears open for movement behind them.

(*g*) When the beaters reach the far edge of the wood, they should halt and wait for the platoon commander to give the success signal. If they break cover before this, they are liable to be shot by the stops.

Drill 5—Action when beaters meet enemy

642. Beaters will rush only those enemy who fire on them from a few yards away. In other cases, they will take cover at once and return the fire. The platoon commander will then order his assault element to deal with the enemy supported by the beaters' fire. The drill is:—

(*a*) The platoon commander orders "Assault group forward. Enemy there!" He points to the enemy.

(*b*) The assault element attacks, usually from a flank if the ground allows.

(*c*) As soon as the enemy have been dealt with, the assault element NCO shouts "Clear".

(*d*) The platoon commander then orders "Beaters forward" and they advance through the assault element.

643. Only section commanders and the assault element should be allowed to throw grenades. Before they throw, they must take care to see that the other men are under cover. Grenades should be thrown downhill or into holes whenever possible and trees must be avoided.

644. When enemy soldiers run away, the beaters will shoot them or let them run out into the fire of the stops. They will not run after them.

Drill 6—Reorganization

645. The platoon will reorganize at an RV beyond the far edge of the wood. After the wood has been cleared, the drill is:—

(*a*) All the men in the wood move to the RV under the platoon commander, covered by the stops.

(*b*) The stops then rejoin the platoon in the RV.

(*c*) The platoon takes up an all-round defensive position in the RV.

(*d*) The platoon commander checks on casualties, also on ammunition which will be re-distributed if necessary.

(*e*) A report will be sent to the company commander by wireless.

SECTION 92.—CLEARING SMALL WOODS UNDER NUCLEAR CONDITIONS

646. The drills outlined in Section 91 apply primarily to operations under non-nuclear conditions. Under nuclear conditions, the only significant difference is that stops should drive to their positions in APCs to save time.

CHAPTER XVIII

SUPPORTING ARMS

"Look out and be ready to go to the support of the hardest pressed troops".—Thucydides vi, 68.

SECTION 93.—INTRODUCTION

647. Battles are won by the successful co-operation of all arms. For example, although tanks and artillery cannot seize and hold ground but depend on infantry to do so, infantry are often unable to reach their objectives without help from tanks, artillery and engineers.

648. It is outside the scope of this manual to give the characteristics and details of all other arms and fighting services. The supporting arms considered in the following sections are those with whom the platoon and section usually have direct personal contact in battle. They are the:—

(*a*) Royal Armoured Corps.
(*b*) Royal Artillery.
(*c*) Royal Engineers.
(*d*) Royal Corps of Signals.

SECTION 94.—ROYAL ARMOURED CORPS (RAC)

649. The two kinds of unit of this corps with which the platoon is most likely to work are:—

(*a*) The Armoured Regiment which is part of the infantry brigade group.

(*b*) The Armoured Personnel Carrier (APC) Squadron.

The Armoured Regiment

650. The Armoured Regiment is armed with tanks. It is organized in three fighting squadrons. Each squadron consists of a squadron HQ with its control tanks and four troops each of three gun tanks. One of these troops is a heavy gun tank troop. Normally each squadron is directly affiliated to one of the battalions of the infantry brigade.

Tank characteristics

651. The main characteristics of the tank are:—

(*a*) *Fire power*: the armament of a tank is usually:—

(i) Main armament: a gun mounted in a turret with all-round traverse; capable of engaging hostile armour at about 1,500 yards with armour-piercing (AP) shot and targets up to about 3,000 yards with HE, firing direct.

(ii) Secondary armament: a machine gun, mounted co-axially with the main armament in the turret, having an effective range of 1,200 yards.

(*b*) *Mobility*: the tank can move at speed across country. Limitations to movement are:—

(i) Streams or artificial ditches more than 8 feet wide or a vertical step of more than 3 feet.

(ii) Marshes.

(iii) Very rocky ground.

(iv) Very steep slopes.

(v) Very thick woods with big tree trunks or large tree stumps.

(vi) Anti-tank minefields.

(*c*) *Visibility*: when a tank is closed down, visibility from it is limited for crew members other than the commander. Fog, smoke and darkness also restrict visibility.

(*d*) *Protection*: the armour of the tank protects the crew from small arms fire, shelling by field guns and from light and medium anti-tank weapons. Against nuclear weapons, the tank protects its crew much as overhead cover protects infantry.

(*e*) *Size*: the tank is hard to conceal. It usually takes cover from anti-tank fire by moving to hull down fire positions where only its turret is exposed to view.

Tanks in support of infantry

652. Tank support for infantry, as well as destroying enemy tanks, usually takes the following form:—

(*a*) In the attack:—

(i) Flanking and overhead fire support: flanking fire is the most effective and may be provided if some tanks do not move on the same axis as the infantry.

(ii) Close support in the assault, especially over the last hundred yards.

(iii) Flank protection.

(iv) Exploitation.

(v) Immediate anti-tank protection during reorganization before and after the MOBATs are in position.

(vi) Defeating enemy counter-attacks.

(*b*) In defence:—

(i) The framework of the anti-tank defence for the battalion area in conjunction with the MOBATs.

(ii) Dealing with enemy penetration either from primary or alternative battle positions. The latter are selected after reconnaissance but not necessarily occupied until the need arises.

(iii) Providing a mobile reserve for tasks such as counter-attacks.

653. Tanks can also carry infantry, but do not do so when expecting imminent action. During an advance, the rear troops of a squadron may lift some infantry. One tank can lift up to a platoon but if opposition is expected during the move, a normal tactical load is one section to each tank or one platoon to each troop; the platoon commander should travel on the troop commander's tank. Although tanks usually tend to attract enemy fire, the advantages to the infantry of increased speed and mobility are considerable. Infantry must not ride on the leading tanks as the main armament cannot be used and the turret cannot be traversed when troops are being carried. The leading tanks must always be ready to fight at once.

654. If infantry have to ride on tanks for any distance, section commanders must watch their men carefully to prevent them going to sleep and falling off. They must also ensure that men do not hang their legs over the sides of the tank; this may

result in them being crushed against trees or walls. The number of men carried on a tank must be related to the distance to be covered. The longer the journey, the fewer infantry should be carried on one tank.

Infantry assistance to tanks

655. Infantry must protect tanks from close-range anti-tank weapons, particularly in thick country where limited visibility makes tanks very vulnerable to this form of attack.

Recognition

656. Tanks move from fire position to fire position at best speed, covering each other forward in bounds. Tanks do not move at infantry pace. They may therefore be some hundreds of yards from the infantry they are supporting: sometimes in front, sometimes behind. The tanks may also move on a different axis; if the ground or the going is unsuitable, they may be launched from a flank. Section commanders must therefore be able to identify individual tanks and communicate with them either to pass information or to indicate targets.

Standard signs

657. The following standard signs are used throughout the RAC:—

(*a*) Tactical signs to denote squadrons; these are painted on the sides of the turret and are:—

(i) ◇ —Regimental HQ and all vehicles of HQ Squadron.

(ii) △ "A" Squadron.

(iii) ▭ "B" Squadron.

(iv) ○ —"C" Squadron.

(*b*) The wireless code sign affix which is either painted within the tactical sign or on the back of the turret. For example:—

—No. 1 Troop Leader, "A" Squadron.

—No. 3 Troop Corporal, "B" Squadron.

(*c*) Names of individual tanks which may be painted either on the side of the hull or the turret. For example:—

BALACLAVA

Intercommunication

658. The main means of communication between tanks and infantry are:—

(*a*) *Personal contact.* If the infantry are close to the tank the infantry sub-unit commander can speak to the tank commander by climbing onto the tank.

(*b*) *Tank telephone.* If enemy fire stops the infantry commander climbing aboard, he may go to the rear of the tank and use the tank telephone. This is kept in a box and must be taken out when needed. The user should press the buzzer in the box to attract the attention of the tank commander, and press the Pressel Switch on the handset firmly while speaking.

(*c*) *Infantry wireless set.* If the infantry commander is not near the tank, he can speak to the tank commander over his wireless set, provided that the tank's secondary wireless set is on net to the platoon wireless set.

(*d*) *Visual signals.* Provided that simple agreed meanings have been arranged, visual signals can be used. The limitations of what can be understood from a visual signal must be borne in mind.

659. The purpose of these means of intercommunication is to enable future actions to be planned, orders to be issued and targets to be indicated. The standard methods of infantry/tank target indication are given in Appendix B.

660. Tanks have good communications and when they are working with infantry, these to a great extent duplicate the infantry communications; thus in an emergency, platoon or section commanders can speak to their company commanders using the tank wireless. Also tanks sometimes have an artillery FOO working with them in a tank through whom any tank can call for artillery fire.

The APC Squadron

661. This squadron is equipped with APCs for carrying infantry across bullet-swept ground. One APC can carry one section. Infantry cannot fight from an APC except in emergency and they are vulnerable to enemy fire at the moment of dismounting. The mobility and armoured protection of the APCs is invaluable to infantry especially when operating under nuclear conditions.

SECTION 95.—ROYAL ARTILLERY

662. Artillery supports infantry operations:—

(*a*) In attack by neutralizing enemy positions while the infantry move. This is known as *Covering fire.*

(*b*) In defence by bringing down fire on the enemy when he is forming up to attack or during the attack. This is known as *Defensive fire* or *DF.*

663. Artillery may also provide the following types of support:—

(*a*) *Harrassing fire* on known and suspected targets to disorganize the enemy and lower his morale.

(*b*) *Smoke* to blind enemy positions.

(*c*) *Counter bombardment* (*CB*) to neutralize or destroy enemy artillery and mortars.

(*d*) *Illumination* by star shell, or movement light from searchlights to light up the battlefield at night.

Defensive fire (DF) tasks

664. In defence likely enemy FUPs and approaches to the battalion position are selected as DF tasks. Each DF task is given a number so that fire can be called for and brought down quickly on that target. In non-nuclear defence there will be 6-8 DF tasks on a battalion's front; in nuclear defence there will be more. The most dangerous approach to the battalion's position is selected as the DF (SOS) task. When the guns are not firing they are always laid on this target.

OPs

665. By day targets are engaged by observation from an OP. There will normally be two artillery OP officers with a battalion. Infantry must help the OP officers to get the best position for their OP and ensure they are adequately protected. By night or at times of poor visibility targets can be engaged accurately from a map.

Control

666. Artillery fire is controlled by the OP officers and the battery commander who is at battalion HQ, all of whom have wireless and possibly line communications to the guns.

During an attack, an OP officer will often move with the attacking infantry, in which case he is called a Forward Observation Officer (FOO). His tasks are:—

(*a*) To act as a forward OP.

(*b*) To engage opportunity targets and alter the fire plan if necessary.

(*c*) To engage DF tasks covering the objective.

(*d*) To pass back information.

Target grid procedure

667. Infantry platoon commanders must know how to control artillery fire so that they can take over temporarily if the OP officer becomes a casualty or if one is not present. Target grid procedure is a simple method of controlling artillery fire. It is explained in Appendix C. Communication to the guns can be made through an OP officer or the battery commander, who have sets on the battalion net.

Covering fire

668. To get maximum advantage from covering fire, which may be in the form of a barrage or concentrations on enemy positions, infantry must move as close to it as safety allows. Before any atack therefore, the artillery officer should be asked about the safe distance. As a guide the safe distance for field guns (25-pounders) is 200 yards and for medium guns (5·5-inch or 155-mm) 400 yards.

Shelling and Mortaring Reports (SHELREP/MORTREP)

669. To enable the artillery to attack enemy guns and mortars (CB), infantry must pass back all relevant information as quickly and as often as possible. Such information must be passed back on the proper SHELREP/MORTREP form, a copy of which is shown at Appendix D.

Artillery units

670. The artillery units which normally provide support for an infantry brigade group are:—

(*a*) One field regiment of eighteen 25-pounder guns which is divided into three batteries of six guns. One battery is normally affiliated to each battalion in the brigade group so that a battalion can always count on the fire of at least one battery of field guns. The 25-pounder fires HE, including airburst, up to a maximum range of 13,400 yards, and smoke up to 10,800 yards.

(*b*) One medium battery of six 5·5-inch guns. The medium gun fires HE, including airburst up to a maximum range of 18,000 yards. Having a heavier shell it is more effective than a 25-pounder against troops behind cover and in built up areas but it's rate of fire is lower.

Nuclear fire

671. Nuclear fire can be provided by guns, rockets and guided weapons. At present, as the effects of a nuclear explosion are so great, control of nuclear fire is retained at Corps HQ although a nuclear strike can be requested at any level. When very low yield missiles become available in quantity, control may be decentralized to division or brigade HQ.

672. Nuclear fire can either be used as the main battle winning factor, with all else in support, or it can be used in a supporting role. In the first case, GZ and yield will be selected to ensure maximum effect on the enemy. It may be necessary to move our own troops to a safe distance. In the second case, where no movement of our troops can be accepted, either the GZ or the yield will have to be adjusted to ensure the safety of our own troops. This may produce considerably less effect on the enemy.

673. Non-nuclear artillery will always be required to supplement nuclear artillery to engage any enemy who have escaped the effects of a nuclear strike and to provide normal covering fire and DF for infantry and armour.

674. Nuclear missiles cannot be fired on call at preselected targets, such as DF, in the same way as high explosive, since delays in obtaining sanction to fire and the time required for warning our own troops will prevent it.

Warning of a nuclear strike

675. Before any nuclear missile is fired, friendly troops liable to be harmed by the effects must be warned so that they can take protective action.

676. To keep the warning time to a minimum, it is essential that the quickest means is used, consistant with security. As much time as possible should therefore be allowed between a request and the time nuclear fire is to be brought down.

Section 96.—ROYAL ENGINEERS (RE)

Organization

677. At divisional HQ there is an RE Colonel who is Commander, Royal Engineers (CRE). He has a small staff and a field park squadron under command. The CRE acts as engineer adviser to the divisional commander and is the technical director of engineer units allotted to brigade groups.

678. In each brigade group there is a field squadron. If necessary for practical tasks, the CRE can reinforce this squadron with other engineer units in the division or he might even get reinforcements from corps.

679. The field squadron consists of a squadron HQ and three troops. Each troop has a strength of about 36 and is organized into three sections. The troop is entirely motorized and one of its sections is carried in an armoured vehicle. It has its own tools, explosives and cooking equipment. Each forward troop has a light wheeled tractor. The squadron communications are good, each troop having two mounted wireless sets.

680. The field park squadron at divisional HQ supports the field squadrons with tools, stores and the heavier types of plant. It can make such things as parts for improvised bridge construction. It will also provide defence stores.

Tasks

681. The task of the engineers is, briefly, to help our troops to fight, to move and to live and to make it difficult for the enemy to do so. They build roads and bridges, man rafts and power-driven boats in river-crossing operations, carry out and repair demolitions, make and remove obstacles and lay and lift mines. They also help to construct the heavier types of field defences and erect and operate water-points for unit water carts.

682. Outside the division, there are a number of specialist engineer units such as armoured engineer squadrons. These are equipped with special tanks which have various devices enabling them to make rapid tank crossings under fire over ditches, streams and minefields and to destroy strong enemy defences.

Co-operation

683. There are always parties of engineers working in the forward areas. An infantry platoon commander in whose vicinity one happens to be, should make contact with it. It is almost certain that each can help the other, even if it is only by exchanging information.

684. RE reconnaissance parties must often approach forward infantry in their search for technical information such as the state of roads and bridges, types of mines encountered, width of streams and canals and local engineer material like timber, steel, stone and sand. Any information on matters of this kind, whether already reported or not, should be given to the engineers on the spot as it may be valuable to them.

Section 97.—ROYAL CORPS OF SIGNALS (R SIGS)

Responsibilities

685. This corps is responsible for:—

(*a*) Providing wireless, line and despatch rider communication within the division down to:—

(i) RAC: regiments.
(ii) RA: regiments.
(iii) RE: regiments and field park squadrons.
(iv) Infantry: battalions.
(v) Services: companies.

(*b*) Providing special communications, when required, over waterways, bridges and diversions.

(*c*) Co-ordinating all inter-communication, including allotting frequencies for all purposes, and a general responsibility for all signal equipment.

(*d*) Signal advice and technical assistance to all arms.

(*e*) Maintaining communication security.

Organization

686. The divisional signal regiment is organized into three squadrons. Their responsibilities are as follows:—

(*a*) HQ Squadron: administration, technical support and monitoring all wireless transmissions.

(*b*) No. 1 Squadron: provision of radio relay, line communications and signal centres at the division's main and alternative HQs.

(*c*) No. 2 Squadron: all wireless communications for main and alternative HQs.

687. The infantry brigade group signal squadron is organized as follows:—

(*a*) Squadron HQ: signal planning and co-ordination of all signal matters within the brigade group; first and second line maintenance of all communication equipment.

(*b*) Brigade HQ troops: DR and line communications for brigade HQ: provision of brigade signal centres; radio relay rear link to divisional HQ.

(*c*) Wireless troop: all wireless communication for brigade HQ and rear links.

(*d*) Armoured Regiment signal troop: } rear link wireless detachments and battery charging for regiments.

(*e*) Field Regiment signal troop: }

CHAPTER XIX

SECTION AND PLATOON EXERCISES

"The best form of 'Welfare' for the troops is a superb state of training, for this saves unnecessary casualties".—Field Marshal Erwin Rommel.

SECTION 98.—TRAINING

688. The higher the standard of training of a platoon, the higher is the confidence of the troops in themselves and their leaders and the higher, therefore, is their morale. The longer

platoon and section teams can be kept together, the better. Training in battle discipline and morale is not a special kind of training. It is an integral part of all training.

689. Battle discipline is the application of individual training when men work together as a team. During training, platoon and section commanders must constantly watch for and instantly check all faults including individual mistakes in fieldcraft such as:—

(*a*) Failure to set sights correctly.

(*b*) Failure to crawl into a fire position.

(*c*) Failure to observe in the correct direction.

(*d*) Needless exposure on a skyline.

(*e*) Failure to cover exposed skin or to erect a thermal screen, in a nuclear setting.

690. Young NCOs must be trained to command a section well; they must be given a chance to acquire the necessary knowledge and confidence on an NCO's course. This will give them a grounding in the knowledge they need as well as confidence through practice in commanding other students.

691. Every exercise automatically provides leadership training for the commanders involved. Once they have been given the necessary grounding, junior leaders will benefit a great deal from the experience they get on training exercises.

692. Before they can take part in exercises, every man must reach the highest standard of which he is capable in the basic infantry skills. These are:—

(*a*) Physical fitness.

(*b*) Fieldcraft with the weapon.

(*c*) Marksmanship.

This will ensure that every man is fit enough to reach a fire position unobserved. The platoon commander is personally responsible for this training and for deciding the standard which must be reached before section exercises are attempted.

SECTION 99.—SETTING AN EXERCISE

Essentials

693. The three essentials to consider in setting an exercise are:—

(*a*) A clear aim.

(*b*) Careful and thorough preparation.

(*c*) Realism and interest.

The aim

694. The aim of the exercise may be to teach, to practice or to test; each needs a different approach. It is a mistake to try to cover too much in one exercise. If the aim is to teach, not more than four lessons can be put over at any one time. The aim must be kept simple and the exercise should be framed so that the incidents bring out the lessons clearly.

Preparation

695. There is no short cut: the value of an exercise is usually in direct proportion to the amount of preparation put into it. The tactical and administrative preparations are both important. The exercise enemy and umpires must be fully briefed on the aim and details of the exercise and know just what to do in any situation.

Realism and interest

696. Realism is a psychological necessity in preparing soldiers for battle. In peace-time, the amount of realism which can be introduced in an exercise is governed by various safety regulations which are laid down in Infantry Training, Volume III, Pamphlets 31 and 32 (Code Nos. 9485 and 9486). These regulations should be studied to ensure that nothing is overlooked. In cases of doubt, the battalion Weapon Training Officer should be consulted.

697. There is usually scope for imaginative improvisation. Fire can be simulated by:—

(*a*) Firing an LMG into a pit.
(*b*) LMGs firing bulletted blank.
(*c*) Blank ammunition.
(*d*) Thunderflashes.
(*e*) Smoke grenades.
(*f*) LMG and rifle simulator: an assault pioneer task.
(*g*) Small explosive charges: let off by the assault pioneer platoon commander.

Types of exercises

698. The main types of exercises are:—

(*a*) *Model exercises on a sand or cloth model*: for teaching principles and procedure and practising orders but not for siting weapons or testing fieldcraft.
(*b*) *Tactical exercises without troops* (*TEWTs*): for teaching principles, procedure and tactics at all levels.
(*c*) *One-sided exercises with controlled enemy*: generally used for teaching and practising low-level tactics; a valuable quality of these exercises is realism.

(*d*) *Two-sided exercises*: used for testing commanders and troops; they are difficult to control.
(*e*) *Skeleton exercises*: used for testing commanders, staffs and communications; they may be two-sided.
(*f*) *Field firing exercises*: the best type of exercise for practising and testing fire control, fire discipline and markmanship.

Teaching tactics

699. The best sequence for teaching a lesson in minor tactics is:—

(*a*) Begin with a demonstration or film to set a standard for future conduct.
(*b*) Next, hold a model exercise and discussion to teach principles and procedure.
(*c*) End with a one-sided exercise with controlled enemy to put the teaching into practice. Umpiring is considered in Section 103.

Exercise instructions

700. A properly prepared exercise must be written down and exercise instructions should be drafted in enough detail to enable another officer to take over and run the exercise at short notice. The minimum written requirement is:—

(*a*) *Part I.* Aim and lessons, general narrative and opening situation: to be issued to all troops taking part.
(*b*) *Part II.* Exercise instructions: to be issued to all troops taking part and everyone not taking part who is otherwise affected, such as the QM, MTO or Medical Officer.
(*c*) *Part III.* Instructions for the enemy and umpires and a forecast of events: to be issued only to troops acting as enemy and umpires.

701. A specimen exercise layout is given in Section 102. A skeleton layout has been included as Appendix E.

SECTION 100.—SECTION FIRE CONTROL EXERCISES (DAY AND NIGHT)

General

702. Fire control in battle is one of the most important problems facing the section commander. Without this control, much of the value of good fire positions will be lost. To control the fire of his section correctly and obtain the best fire

effect, the section commander must understand and have had plenty of practice in:—

(*a*) How to locate and indicate targets; every man in the section should be able to do this.

(*b*) How to estimate range accurately; every man in the section should be trained to do this.

(*c*) What weapon to use for the best effect in dealing with the enemy.

(*d*) What type of fire to order.

(*e*) Where to position himself to control the fire of his section most effectively.

(*f*) How to keep an eye on the ammunition supply and maintain an adequate reserve.

703. Much useful practice in fire control can be done indoors using harmonized sights with a landscape target in the Miniature Range or, better still, by firing on a working model.

Fire control in the advance

704. When holding a fire control exercise for the advancing section, the platoon commander should:—

(*a*) Stress in pre-exercise briefing that the aim is to enable the section commander to get the feel of his section, practice anticipatory orders and carry out the drills which he has been taught.

(*b*) Stop the exercise and sum up once the section commander has brought effective fire to bear on the enemy and ordered covering fire for the LMG group to move.

Fire control in defence

705. This exercise may be carried out by day or night using:—

(*a*) Live ammunition and a simulated enemy: the best method;

or

(*b*) Blank ammunition and a live enemy.

Arranging day fire control exercises

706. (*a*) *Ground*: should afford sufficient cover and variety to produce most of the situations likely to confront a section commander.

(*b*) *Section position*: should be sited and dug to give the section commander some choice in positioning himself and his men; Safety Regulations must be observed.

(*c*) *Targets/incidents*: should be selected by the platoon commander standing at the section position. Activity should begin with some movement beyond the tactical range of the section weapons. It should go on to build up a picture of an aggressive enemy advancing; the enemy should appear briefly, fire and crawl forward at steadily decreasing ranges, ending up with an assault. In this connection:—

(i) The types of targets should vary from single men to groups and be designed to exercise the commander and his section in the tactics listed in Paragraph 702 above.

(ii) An exercise including about a dozen incidents, with briefing and summing up, will take up a 45 minute training period.

(iii) A live firing exercise is also restricted by safety regulations, the necessity for constructing bullet proof positions for men simulating the enemy and the number of incidents which can be controlled from any one position.

(*d*) *Preparation*: the platoon commander should cover the following points when writing his Exercise Instructions:—

(i) Preparation of the ground.
(ii) Rehearsals for troops acting as enemy or working the simulated enemy.
(iii) Troops required as enemy, assault pioneers and signallers and for control .
(iv) Weapons for troops on both sides.
(v) Ammunition.
(vi) Communications: should include a safety net if it is to be a live firing exercise.
(vii) Other stores required, such as red flags, target material and defence material.
(viii) Special instructions for battle simulation.
(ix) Safety Regulations governing the exercise.

(*e*) *Rehearsal*: the success of an exercise of this kind depends on the adequate training and effective control of the enemy. It will take a full day, exclusive of the time needed to dig positions, to brief and rehearse the enemy.

(*f*) *Control*: the platoon commander must have a means of control which allows him to give his full attention to the section carrying out the exercise. For this he must have an assistant controller who can pass his orders to the enemy. This assistant must be screened so that he cannot be seen or heard by the section being exercised. He must be trained to act on the platoon commander's hand signals. He may control the enemy

by wireless, telephone or any form of visual signal, depending on the ground and the nature of the exercise.

Arranging night fire control exercises

707. (*a*) *Ground*: should have a potential field of vision of up to 350 yards. It should be fairly flat with most of the skyline above the level of the rest of the ground, if possible.

(*b*) *Section position*: the requirement is the same as for the day exercise but the position must also be isolated from outside noises and lights which would spoil the exercise.

(*c*) *Timing*: should take into account the moon's phase and weather conditions.

(*d*) *Targets/incidents*: should be arranged between ranges of about 350 to 15 yards and from half left to half right. Incidents should create an impression of a steadily advancing and aggressive enemy. In this connection:—

(i) Attention is again drawn to Safety Regulations, particularly if there is to be live firing.

(ii) An exercise including about ten incidents, with briefing and summing up, will take about 35 minutes.

(*e*) *Safety*:—

(i) Exercises using blank ammunition should be run with normal precautions for firing blank. The exercise can be carried out on any suitable ground subject only to local conditions and Standing Orders for the training area concerned.

(ii) Exercises using live ammunition can only be held in approved firing areas. The detailed regulations for safety, control and the preparation of bulletproof positions are laid down in Infantry Training, Volume III, Pamphlet 32 (Code No. 9486). These exercises must always be planned in conjunction with the officer controlling the field firing area and his approval must be obtained before they can be held.

Running the exercise by day

708. (*a*) *Briefing*: should be done on the ground. The platoon commander should brief the section on:—

(i) The aim of the exercise: "To give further practice in fire control in defence using live/blank ammunition".

(ii) The opening narrative: "The section has been in this position for 'N' days. The enemy is in such an area and known to be patrolling vigorously. Platoon HQ is at "X"; other sections are at 'Y' and 'Z'".

(iii) Section arc.

(iv) Orders for ammunition and Safety Regulations.

(*b*) *Orders* to and by the section commander: he should be told to take over the position and place himself and his section as he wishes and to give out orders to include:—

(i) Suitable reference points and their ranges.

(ii) Arcs of responsibility for each slit trench.

(iii) Orders for opening fire and reporting enemy activity seen.

(*c*) *Incidents*:—

(i) Figure 6 shows a suggested layout for a live firing exercise with simulated enemy or a blank firing exercise with live enemy. For an exercise with live enemy, the same incidents can be created by about three sections.

(ii) The table on Page 171 shows the incidents arranged with live enemy, how they can be simulated and which section or pit, according to the type of exercise, could carry out the task. The table also includes comments on the possible reactions of the section commander and mentions points for which the platoon commander should watch.

(iii) After each incident, the platoon commander should discuss the action of the section commander and, if necessary, of the section and sum up briefly. An incident should be repeated if necessary.

(iv) The platoon commander must continue to give the section commander a realistic narrative of the enemy's actions especially when the enemy is being simulated.

(*d*) *Summing up.* At the end of the exercise, after unloading, the platoon commander should sum up briefly. Meanwhile, after a live firing exercise, the troops simulating the enemy should check targets and record the number of hits scored alongside the number of rounds fired. In his final summing up, the platoon commander should cover:—

(i) The section commander's preliminary orders.

(ii) The sequence of his orders and how this was adapted to the situation.

(iii) Opening fire: timing.

(iv) Whether the volume of fire for each incident was correct.

(v) Before dismissing the section, the number of hits scored in relation to the number of rounds fired.

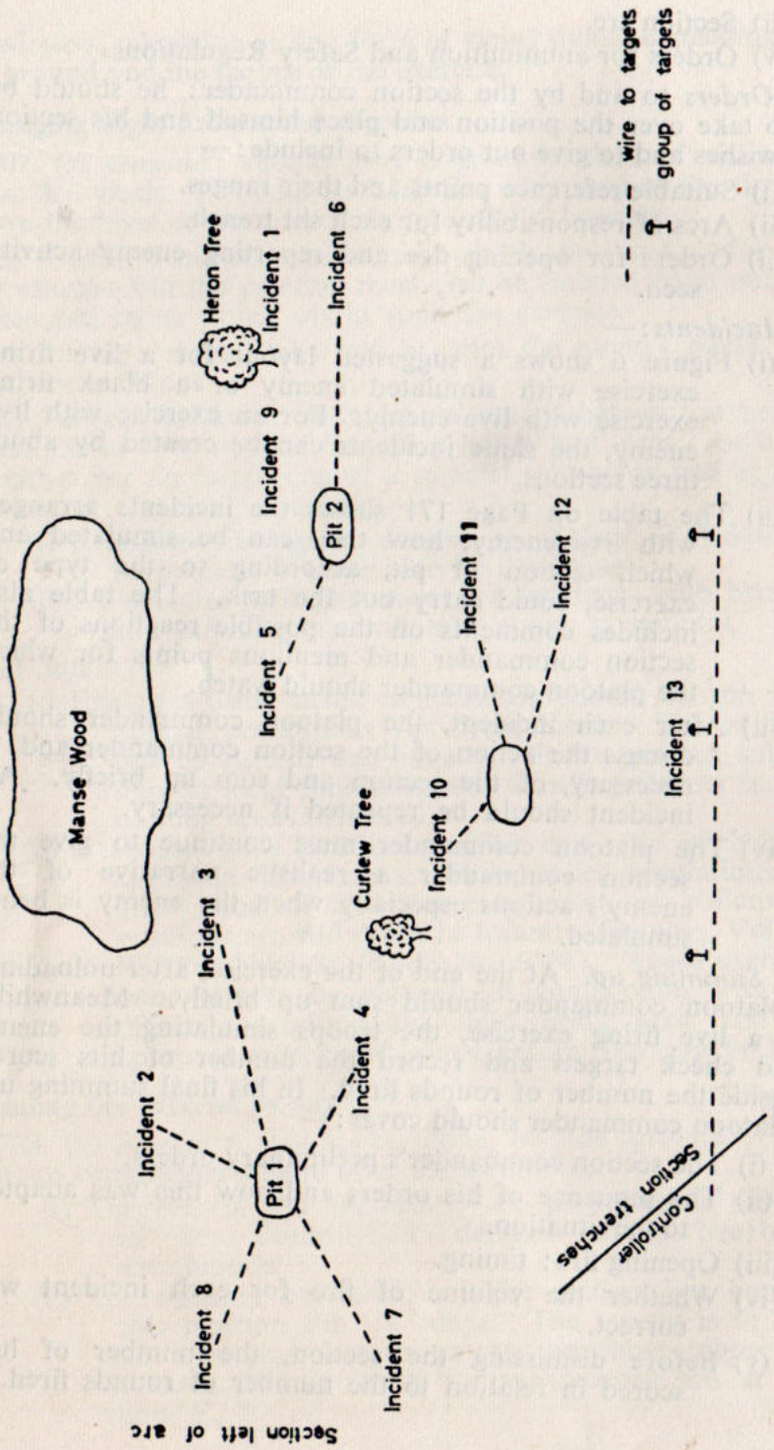


FIG 6.—Fire control exercise by day

Running the exercise by night

709. (*a*) *Briefing*: should be done on the ground by day. It should include the same detail as the day exercise briefing and should also cover:—

(i) Firing by night using the sense of direction.
(ii) The short fire order by night.
(iii) Why the enemy attacks at night, namely to gain surprise and because he hopes the defenders' fire will not be effective: this fire must therefore be made effective.

(*b*) *Orders* to and by the section commander should be the same as for the day exercise except that reference points will be left out.

(*c*) *Incidents*:—

(i) Figure 7 shows a suggested layout. This is like the layout for the day exercise but fewer men are wanted to act as enemy.
(ii) The table on Page 175 shows the incidents arranged with live enemy, how they can be simulated, and how many men or which pit, according to the type of exercise, could carry out the task. The table also includes comments on the possible reactions of the section commander and mentions points for which the platoon commander should watch.
(iii) Since most of the incidents will be located by sound, the success of the exercise depends on the verbal picture which the section commander is given during the exercise. The platoon commander must adjust his narrative if necessary because of changes in wind, weather, intensity of darkness or outside noises.

(*d*) *Summing up*: will be as for the day exercise but the platoon commander should also emphasize that the effectiveness of the section by night depends largely on clear briefing and good anticipatory orders by the section commander.

SECTION 101.—SECTION NIGHT OBSERVATION EXERCISES

710. The platoon commander should ensure that all his men are given regular practice in night observation and listening. Individual training in these subjects is dealt with in Infantry Training, Volume I, Pamphlet No. 2, "Fieldcraft" (Code No. 8890). The next stage is to detail a section as a standing patrol and give the section commander a task. A series of sounds and movements should be arranged, not only to give practice in identification but to suggest a definite tactical picture. Although

soldiers are not normally called upon to interpret the meaning of activity, some will try to do so and their interest will accordingly be stimulated. This is an essential part of the training of section commanders.

711. A more advanced form of this type of exercise can be done for NCOs only but resources from outside the platoon are required to stage it. Suggested incidents are:—

(*a*) Firing all small arms weapons, if a suitable range is available.
(*b*) Loading weapons.
(*c*) Digging.
(*d*) Wiring and wire cutting.
(*e*) Bending corrugated iron sheets.
(*f*) Action of patrols under various types of illumination.
(*g*) An MMG section coming into action in vehicles.
(*h*) Armour moving.
(*j*) An officer speaking too loudly on a wireless set.
(*k*) Men eating their evening meal.

SECTION 102.—PREPARATION OF A SECTION AND PLATOON FIRE AND MOVEMENT EXERCISE

Sequence of preparation

712. (*a*) Decide on the aim of the exercise and the lessons to be taught, also whether the exercise is to be live firing with targets representing enemy or without firing but with a live enemy. Unless the platoon is in its final stage of training, a live firing exercise should always be preceded by a run through without firing.

(*b*) Select a suitable piece of ground which will enable the lessons to be brought out.

(*c*) Issue written instructions.

(*d*) Site enemy positions, brief the enemy and umpires and hold rehearsals.

(*e*) Walk the course with the umpires.

(*f*) Hold the exercise.

(*g*) Sum up.

Aim and lessons

713. The aim may be either to teach or practise the platoon or section in Fire and Movement in any of the phases of war. The lessons will differ accordingly but the number to be taught should be limited to four as this is the most which troops can be expected to take in on one exercise.

FIRE CONTROL EXERCISE BY DAY

Incident No.	Event				Comments
	Blank—live enemy	Section No.	Live—simulated enemy	Pit No.	
(a)	(b)	(c)	(d)	(e)	(f)
1	Sporadic fire from 450–500 yards	2		2	The firing is probably too far away to draw the section's fire. The section commander should point it out to the men in whose arc the firing takes place if their attention has not already been drawn to it.
2	A section of men appears in line down the left of Manse Wood then go to ground; range 300–350 yards	1	Six No. 10 or No. 11 targets on pull-up frames	1	Good enfilade task for the LMG; bursts should be fired not rapid. The target is rather too far for riflemen.
3 and 4	A group of riflemen appears at 300 yards and fires. The same group appears again at 250 yards	1	Six No. 13 targets with simulated fire as for Incident No. 1	1	Good rifle targets. Fire of the section should be distributed.
5	A group of riflemen appears from behind the left hedge and cross to the right hedge; range 250 yards	1 or 2 depending on dead ground	Sledge with eight No .11 targets nailed to it pulled from cover to cover from the pit	2	Good rifle targets. Fire should be concentrated; try and catch them in the open.

Incident No.	Event				Comments
	Blank—live enemy	Section No.	Live—simulated enemy	Pit No.	
(a)	(b)	(c)	(d)	(e)	(f)
6	One man crawls from cover towards dead ground near Pit No. 2; range 300 yards	2	Small sledge with one or two No. 12 targets nailed to it	2	A difficult target suitable for an individual fire order ("Watch and Shoot") to No. 1 and No. 2 Riflemen. This is the kind of serial when riflemen can be given practice location drills.
7	Two men crawl from cover to cover at the extreme edge of the left flank; range 300 yards	1	As for Incident No. 6	1	Another target for individual riflemen but the whole group may be used.
8	Enemy LMG group opens fire from the bunker	1	No. 13 target on a pole moved up and down in the pit. Also fire bulletted blank into the air	1	The whole section should be at "Watch and shoot".
9	As for Incident No. 8 but from the bunker near Pit No. 2	2	As for Incident No. 8	2	As for Incident No. 8.
10	Two men crawl from cover of Heron Tree to new cover; range 200 yards	3	One No. 13 target nailed to a sledge	3	A suitable target for one or two riflemen, with the rest of the section watching original arcs. The platoon commander should stress that the enemy build up is getting nearer.
11	A section appears in line from dead ground at Curlew Tree; range 200 yards	3	Eight No. 11 targets nailed to a sledge	3	Good defilade target for the LMG or whole section.
12	Two or three heads appear from cover in the area of Pit No. 3	3	No. 12 target waved from the pit	3	LMG single shots or a couple of riflemen.
13	Frontal attack by two sections; 150 yards, 100 yards and 50 yards. Sections fire smoke grenades as the first wave appears and explode gun cotton slabs at the nearest safety distance	2 and 3	Pull up frames with No. 11 targets at 150, 100 and 50 yards range should be hauled up by the Controller's assistants. Simulated fire from targets as for Incident No. 1. Smoke grenades attached to targets at 150 yards range. Gun cotton slabs exploded at the nearest safety distance	Control	The platoon commander should have built up a description of a situation in which the section commander realised an attack must come in shortly. If the section commander understands the situation, he should give the order "Prepare to fire at rapid" before this incident begins. The section should fire into the smoke to restrict enemy movement. The platoon commander should watch for effective rapid fire.

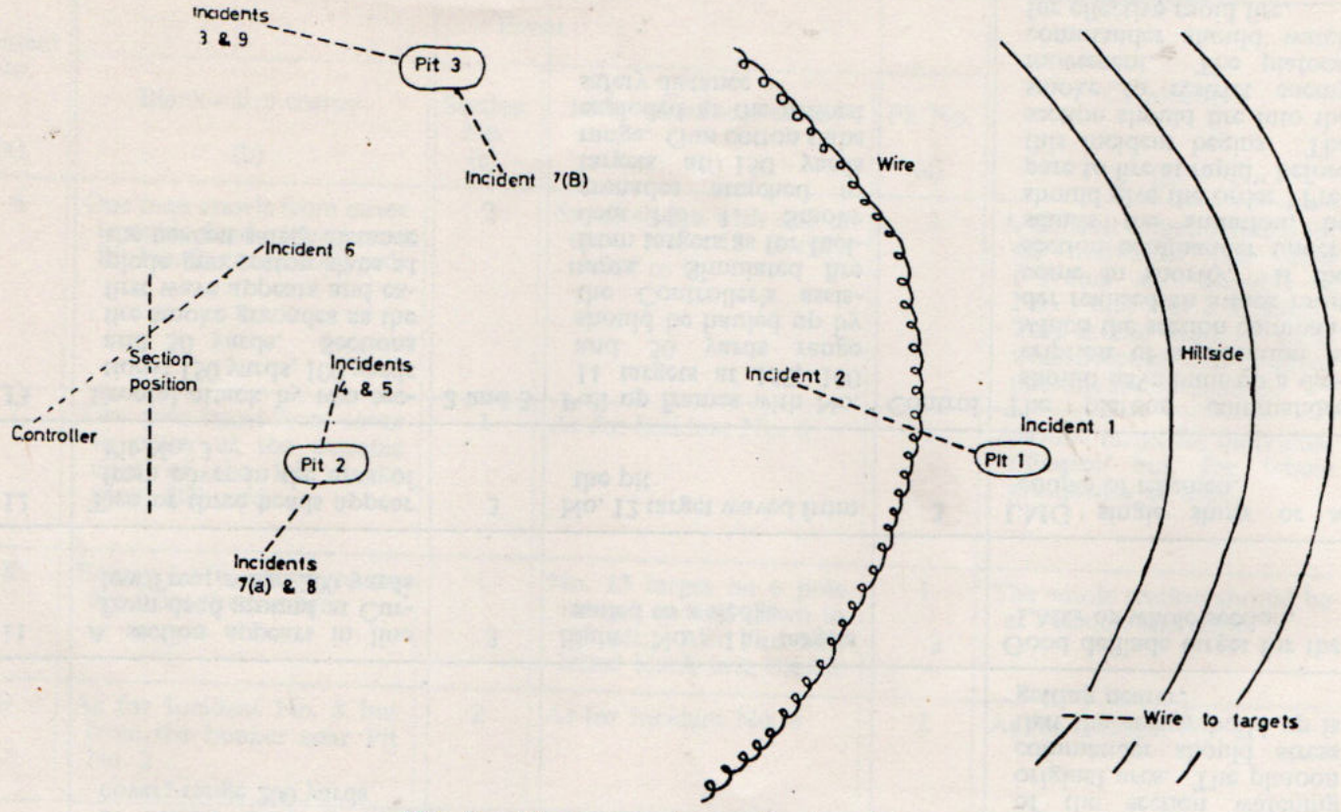


FIG 7.—Fire control exercise by night

FIRE CONTROL EXERCISE BY NIGHT

Incident No.	Event (1 and 3–7 without illumination)				Comments
	Blank—live enemy	Men needed	Live—simulated enemy	Pit No.	
(a)	(b)	(c)	(d)	(e)	(f)
1	A man yells insults at 200–250 yards range	1	Same	1	No action: the enemy is trying to draw fire.
2	A patrol cuts wire, rattles tins on wire and sets off trip flares	1 (Same as for No. 1)	Same, pulled by string	1	Must be engaged.
3	Enemy troops moving along the skyline; range about 130 yards	6	Six No. 10 figure targets on pull-up frames	3	Engage if seen; if not, the platoon commander should gradually draw attention to the target and watch the method of reporting by the man who sees it first.
4	Enemy LMG fire (bulletted blank) at 75 yards	1	Same, fired upwards from the pit, then replaced by a target near the gun	2	LMG bursts: rapid.
5	Enemy forming up inside the wire, indicated by clear orders given just loud enough to be heard	1	Same, from the pit	1	Shoot on sight but fire to be controlled.

FIRE CONTROL EXERCISE BY NIGHT—*continued*

Incident No. (a)	Event (1 and 3–7 without illumination)				Comments (f)
	Blank—live enemy (b)	Men needed (c)	Live—simulated enemy (d)	Pit No. (e)	
6	Enemy jitter party crawls up to slit trenches and throw thunderflashes	2	One No. 13 target on a sledge drawn by the control party, with a thunderflash exploded with safety fuse	Control	This is where the section commander should also use grenades; careful listening should be stressed.
7	(a) Enemy assault on the right; and (b) LMG fire support from the area of Pit No. 3	8	Six No. 11 targets on pull-up frames; LMG firing bulletted blank into the air	2 3	The section should engage both targets. This incident may give rise to confused orders and a repeat may be necessary.
8	Enemy assault on the right as in No. 7(a) but with 1 inch Cartridge, Illuminating	8 Control	As for 7(a) but with 1 inch Cartridge Illuminating	2 Control	The platoon commander must carefully explain the controlled use illuminants. Incidents 8–9 are included to show how much or how little help they give. Control will fire the illuminants in each case.
9	As for Incident No. 3 but with mortar illumination	6 Control	As for Incident No. 3 but with mortar illumination	3 Control	

714. The remainder of this section deals with an example of a Fire and Movement exercise based on the following aim:—

"To practise the platoon in the independent platoon attack using Fire and Movement".

715. A possible choice of lessons is:—

(*a*) Section battle drills.
(*b*) Platoon battle procedure.
(*c*) Control by the platoon commander.
(*d*) Action on reorganization.

716. These lessons could be taught by including in the exercise about three section incidents, two platoon attacks and at least one counter attack.

Ground

717. (*a*) The ground selected must include an objective which becomes the platoon task on which the opening narrative is based.

(*b*) There must be an axis of advance to keep the platoon advance along the route required.

(*c*) Suitable enemy positions must be sited along this axis to bring about three section and two platoon attacks.

(*d*) The ground must afford cover behind which the platoon commander can manoeuvre.

(*e*) There should be alternative lines of approach for platoon assaults.

Issue of instructions

718. The preparation of exercise instructions is explained in Section 99, Paragraph 700. An example is given in Exercise "Pink Coat" later in this section.

Siting enemy positions and briefing (live enemy)

719. The platoon commander must take the enemy over the selected ground, site their positions and ensure that Safety Regulations are understood. At least one rehearsal should be held. Detailed instructions must be given to the enemy on the ground (assuming that LMG fire is represented by LMGs firing into pits) regarding:—

(*a*) When and where to open fire; this depends on the ground and the situation to be brought about.

(*b*) Duration of fire, depending on the situation required:—

(i) One magazine on an LMG may be fired to represent machine gun fire.

(ii) Enemy should continue to fire at movement until effective fire is brought to bear on their position. This should be indicated by signal by the umpire with the advancing troops.

(*c*) Action on being over-run:—

(i) Enemy should die realistically and thereafter should not move until the exercise is over.

(ii) Prisoners of war must not use force but should escape if they are given the chance.

(*d*) Safety precautions:—

(i) Blank should not be fired at men within 25 yards.

(ii) Smoke and illuminants should be fired to a flank.

(iii) The LMG should be mounted on a tripod with sandbags placed on the tripod legs. A pit must be dug and the muzzle of the LMG must be below the level of the ground. If it is likely to remain in position after dark, the LMG should be surrounded with white tape.

Siting enemy positions and briefing (live firing)

720. Before attempting to site or brief the troops operating targets, the platoon commander must carry out a careful check to ensure full compliance with Safety Regulations. He should also ensure that all ranks required to operate targets and simulators are fully dug in and in effective communication with him as the director. Overhead firing is only allowed for Battle Inoculation and is governed by regulations included in Infantry Training, Volume III, Pamphlet No. 32 (Code No. 9486).

Umpires

721. The platoon commander will himself act as chief umpire. He should try to have one umpire with each section and an officer or senior NCO with the enemy who should be in wireless touch with him. The umpires must walk the course and be taken through each incident in detail. They must be told the situation they are to explain in the different circumstances. Every umpire must be fully briefed before the exercise begins.

722. The tasks of umpires are:—

(*a*) To stop all movement under aimed fire by awarding casualties unless such movement is covered by effective fire from our own troops.

(*b*) To check that covering fire is effective: they must see that members of the fire group can in fact see to shoot from the positions they have taken up and that they have identified the target.

(*c*) To ensure compliance with Safety Regulations.

(*d*) To make notes on points mentioned by the exercise director in his briefing.

Running the exercise

723. (*a*) The enemy must get into position unseen by the platoon.

(*b*) The exercise should be allowed to take its course but the director must be prepared to freeze the battle and correct any bad errors as they occur and while they are freshly evident to those taking part.

(*c*) Summing up should take place at the end of the exercise.

Summing up

724. This should be held on the ground when the incidents are still fresh in the men's minds. The platoon commander should take the lessons one by one and illustrate them by quoting incidents, both good and bad, which occurred during the exercise.

SPECIMEN EXERCISE

EXERCISE "PINK COAT"

Part I **REF MAP**

Aim

725. To practise the platoon in the independent platoon attack using Fire and Movement.

Lessons

726. (*a*) Section Battle Drills.
(*b*) Platoon Battle Procedure.
(*c*) Control by Platoon Commander.
(*d*) Action on Reorganization.

General narrative

727. 1 BLANKSHIRES have been on active service in PANGO Land for three months. "A" Company has now been on patrol for three days and has flushed out a large gang of bandits, strength about 60, armed with small arms only. The terrorists have split up and are believed to have moved off in four parties to the NORTH.

Opening situation

728. 1 Platoon "A" Company, 1 BLANKSHIRES, has been ordered to follow up and to destroy one of the parties which has been seen from the air, digging in around a small plantation known as the CITADEL. The whereabouts of the other three parties is not known but it is thought likely that one at least may also be in the vicinity of the CITADEL. The terrorists are known to be desperate and very short of food and ammunition.

Extract of Officer Commanding "A" Company's orders to 1 Platoon

729. (*a*) Task—You will capture the CITADEL and destroy any terrorists who interfere with your operation.

(*b*) Route—I want you to follow the line of the track but make sure that you clear 100 yards on either side.

(*c*) Timings—Move from here at 0900 hrs, that is in 15 minutes time, keep me informed of your progress and do not forget that speed is essential. The less time you give the terrorists to prepare their positions, the better.

OC 2 Platoon
A Company 1 BLANKSHIRES

Distribution: OC A Coy.
Adjt.
IC Enemy.
Umpires.
Notice Board.

PART II EXERCISE "PINK COAT" REF MAP

EXERCISE INSTRUCTIONS

General

730. Exercise will take place on Monday 29 February in the Battalion Training Area. It is a Platoon Fire and Movement Exercise with live enemy.

Troops taking part

731. (*a*) One platoon "A" Company, strength 1 officer and 34.

(*b*) Enemy and umpires—*see* separate details.

Timings

732.

Reveille	0600 hrs
Breakfast	0630 hrs
Parade	0730 hrs
Draw stores	0745 hrs
Embus	0800 hrs
Late dinner	1300 hrs

Duration of exercise

733. The exercise will last from 0845 to 1200 hrs.

Summing up

734. A discussion and summing up will take place as follows:—

(*a*) If dry—on the ground at the end of the exercise.

(*b*) If wet—in 1 Platoon barrack room at 1400 hrs.

Dress

735. Denims, Battle Order less small packs.

Arms and ammunition

736. (*a*) Normal arms less platoon anti-tank weapon.

(*b*) 15 rounds blank per rifleman.

(*c*) 10 magazines filled with 15 rounds bulletted blank per section.

(*d*) 12 light mortar smoke bombs.

(*e*) Verey pistol and 6 green cartridges.

(*f*) 6 smoke grenades.

(*g*) 24 thunderflashes.

737. Arrangements have been made for the CSM to draw the following from the WTO:—

(*a*) .... rounds rifle blank.

(*b*) .... rounds bulletted blank.

(*c*) 12 light mortar smoke bombs.

(*d*) 50 thunderflashes.

(*e*) 6 smoke grenades.

(*f*) 6 Verey cartridges, green.

(*g*) 3 Verey cartridges, red.

Feeding

738. CQMS will arrange to collect one container of tea from the cookhouse at 0745 hrs.

739. A late dinner has been arranged for 50 at 1300 hrs.

Wireless

740. *Distribution*:—

1 Platoon—wireless set (Channel A) NIS TC

Enemy and umpires—2 wireless sets.

741. CQMS will arrange to issue to men concerned.

Transport

742. (*a*) The MTO has agreed to detail transport to report as under:—

1×3 ton vehicle at MT Square 1000 hrs (Recce enemy and umpires), 26 February.

1×3 ton vehicle at MT Square 0700 hrs (Enemy) 29 February.

2×3 ton vehicles 0750 hrs, 29 February.

(*b*) All transport to RV at Cross Roads GR ..... (300 x NORTH of CITADEL) at 1215 hrs on 26 and 29 February. ETR 1300 hrs.

Return of stores

743. (*a*) *Ammunition*:—

All unexpended ammunition will be collected by the platoon sergeant at the conclusion of the exercise and returned to CSM.

(*b*) Weapons to be handed back under platoon arrangements after inspection by Platoon Commander.

Medical

744. The MO has arranged to provide a medical orderly with medical satchel to report to MT Square at 0750 hrs 29 February.

Safety

745. (*a*) The exercise does NOT become tactical until the platoon debus in the Training Area. No weapons will be loaded before this time.

(*b*) Bayonets will NOT be fixed.

(*c*) No weapons will be fired at a range less than 25 yards.

(*d*) The signal to freeze will be a RED Verey light. All ranks will cease fire and remain where they are.

(e) All light mortar smoke and illuminating bombs will be fired to a flank.

OC 2 Platoon

"A" Company.

Distribution: OC 'A' Coy, Adjt, WTO, MTO, MO, RSM, CSM, CQMS, Notice Board, IC Enemy, Umpires

PART III EXERCISE "PINK COAT" REF MAP

INSTRUCTIONS TO ENEMY, UMPIRES AND FORECAST OF EVENTS

(NOT to be issued to 1 Platoon)

Enemy

746. (*a*) *Composition*	2 Platoon less Platoon Commander and 3 NCOs.
(*b*) *Weapons*	Personal arms and pick or shovel. 2 LMGs. 20 Magazines. 3 sets utility pouches.
(*c*) *Dress*	Denims. Cap comforters (or some distinctive head-dress). Camouflage cream. 2 empty bandoliers across the chest of each man.
(*d*) *Wireless*	Wireless set for platoon sergeant (IC Enemy). Channel B NIS DL.

Umpires

747. (*a*) *Appointments*

Chief Umpire and Director—OC 2 Platoon, "A" Company.

Section Umpires	3 NCOs from 2 Platoon.
(*b*) *Weapons*	1 Verey pistol and 3 red cartridges. 2 smoke grenades per umpire. 1 white flag.
(*c*) *Dress*	BD. Berets. White armbands.
(*d*) *Wireless*	1 wireless set (Channel A). Representing Company Commander's set. 1 wireless set (Channel B). Umpire control.

Co-ord instructions

748. (*a*) *Briefing*	Enemy and umpire will parade in 2 Platoon barrack room at 0900 hrs 25 February.
(*b*) *Reconnaissance*	Embus MT Square 1000 hrs 26 February. Dress—Cap, clean fatigue.
(*c*) *Exercise*	Parade as for exercise under platoon sergeant at 0645 hrs 29 February.

PART III

749. (*a*) See sketch map at Annex "P". (Not included in this pamphlet)

	No. (a)	Position (b)	Composition (c)	Enemy Actions (d)	Approx. time (e)	Expected action of platoon being exercised (f)	Action by Umpire (g)
(*b*)	1st	Trench at side of track GR..	3 men of 6 Sec with rifles and blank	(1) Fire on pt sec as they cross wire fence, Range 100 yds (2) When over-run die realistically in trench	0915	(1) Pt sec come under fire crossing fence take cover followed by sec attack. Either LEFT or RIGHT flanking (2) Pl Comd to change pt sec	To award cas if sec bunch crossing wire
(*c*)	2nd	Hunters Cottage GR....	2 men of 6 Sec with rifles and blank lying in open	(1) Fire on pt sec as it comes round corner GR.... Range 25 yds (2) When overrun. One man to die realistically, one man to be taken PW	0945	(1) On coming under fire pt sec to aslt at once firing (2) One enemy to be taken PW (3) Pl Comd to change pt sec	Check whether PW disarmed before being returned to Pl HQ

(*d*)	3rd	Trench at hedge junc GR....	2 men of 6 Sec with rifles and blank. 2 smoke grenades	(1) Fire at pt sec as it leaves line of trees GR.... (2) As aslt is put in throw smk grenade and withdraw under cover of smk to HOUSE GR....	1020	(1) Pt sec takes cover followed by LEFT or RIGHT flanking attack using Fire and Mov (2) Aslt successful en withdrawn (3) Sec pinned down at hedge junc GR.... by en in HOUSE GR	(1) Ensure safety from burst of smoke grenades (2) Prevent sec from advancing further by awarding cas
(*e*)	4th	House GR..	4 Sec and 2 men from third posn to be dug in—LMG and rifles	(1) Open fire on pt sec as aslt goes in on hedge junc GR.... (Fire two mags quickly to rep Machine Gun fire) (2) Engage all further mov with normal rates of fire until signalled to stop by me. I will wave white flag as sig to cease fire (3) When attacked die realistically. Two men to attempt to run away, one man to to be taken PW	1100	(1) Pl Comd appoints pt sec fire sec (2) Mounts RIGHT flanking attack on HOUSE GR .... using hedgerows as covered lines of approach	Chief Umpire to wave white flag when en to stop firing

	No. (a)	Position (b)	Composition (c)	Enemy Actions (d)	Approx. time (e)	Expected action of platoon being exercised (f)	Action by Umpire (g)
(*f*)	5th	SOUTH side of CITADEL WOOD GR....	5 Sec and Pl HQ to be dug in. LMG and rifles	(1) Open fire as Pl Comd and his party cross river GR.... (Fire two mags quickly to rep Machine Gun fire) (2) On my orders Pl Sgt with all but 2 men will withdraw to WEST edge hedge running from NW corner of CITADEL WOOD GR.... (3) All further instrs will be given you by me over wrls set	1120	(1) Pl Comd comes under fire crossing br GR.... pt sec already NORTH of river pinned down by en fire (2) Pl Comd uses smk to cover river crossing by remaining secs and to extricate pt sec (3) Pl Comd makes recce from hill pt 157 (4) Orders RIGHT flanking attack	(1) Chief Umpire to control withdrawal of en by wrls (2) Watch for safety when firing mor smk
(*g*)	C	CITADEL WOOD GR....	5 Sec under Pl Sgt	(1) C attack force under Pl Sgt will adv along line of hedge from WEST and aslt CITADEL WOOD GR....	1200	(1) Fire control orders by pl and sec comds	To be umpired according to posns adopted by pl and the amount of surprise gained by C attacking force

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				(2) Approach to be silent, aslt to achieve surprise (3) Nickname for C attack BIG STAR to be given by me over wrls set		(2) Quick reorg and mopping up of C attack force	

187

Situation which the umpires must describe to platoon and points to note

750. (*a*) *General*

I will move with platoon commander—NCO umpires will accompany sections as detailed.

(*b*) *Umpires will*:—

(i) Inform troops when fire is effective by painting the appropriate picture and awarding casualties.

(ii) Award casualties for bunching in assault, on reorganization and for bad fieldcraft.

(iii) Give whereabouts of enemy positions when other means of indication NOT possible.

(iv) Keep check on SAFETY and prevent any dangerous practice.

(v) Listen to, and be prepared to comment on Section Commanders orders.

(vi) Note points as under: both good and bad must be recorded:—

Control by section commander.
Battle orders (correct sequence).
Fire orders (correct sequence).
Individual fieldcraft.
Reorganization drill.

Umpires conference

751. (*a*) This will be held on the ground immediately after the exercise and prior to the summing up. It will be attended by all umpires and NCO IC Enemy.

(*b*) If wet, conference will take place on return to barracks in Company Office.

Summing up

752. All umpires will attend. For time and place *see* Exercise Instructions, Part II, Paragraph 5.

OC 2 Platoon
A Coy
1 BLANKSHIRES.

Distribution: OC A Coy.
All umpires.
IC Enemy.

SECTION 103.—UMPIRING

Purpose of umpiring

753. Training exercises are designed to teach and to practise commanders and troops in the action to be taken in the face of the enemy. The main obstacle to good tactical training is the difficulty of representing faithfully the conditions of the battlefield. Unrealistic exercises can be harmful as they may teach false lessons and lay those taking part open to surprise when they first meet the enemy in battle. Realism may be achieved in many ways such as by introducing live exercise enemy, simulating battle noises and using live ammunition if safety precautions permit. These measures, however, give only a limited impression of battle conditions. To create and describe the complete battle situations for the benefit of the troops taking part, umpires are employed.

Duties of umpires

754. The main duties of an umpire are:—

(*a*) To create and describe accurate and realistic battle situations given which commanders can make their appreciations and base their plans.

(*b*) To create and sustain for the benefit of the troops taking part the atmosphere of battle by describing the sights and sounds of combat which are lacking on exercises. This provides the soldier with an incentive for moving and handling his weapon in a manner appropriate to battle.

(*c*) To decide the results of contacts and assess casualties: full weight should be given to the fire effect of each side.

(*d*) To influence but not direct the action of commanders by describing the effects of all types of hostile fire in terms of casualties. It is in this way that particular lessons are brought out.

(*e*) To create local incidents within the framework of the exercise.

(*f*) To keep the director informed of the results of engagements, the intentions of commanders and the dispositions of troops so that the exercise may be properly controlled.

(*g*) To ensure compliance with Safety Regulations.

(*h*) To make notes as required.

Selection of umpires

755. An umpire should be more experienced than those whom he has to umpire. Only really good officers and NCOs should be chosen for this duty and not those who can most easily be

spared. Generally, it is best to obtain umpires from a platoon or platoons which are not being exercised. Bad umpiring can ruin an exercise and give rise to much irritation and frustration among those taking part.

Requirements

756. The umpire's task includes:—

(*a*) A full reconnaissance of the exercise area.

(*b*) A detailed study of the narrative and the forecast of events.

(*c*) A complete understanding of the lessons to be brought out and the points which need watching. Umpires must remember that lessons do not always emerge on their own. They must be brought out by influencing the commander and demonstrating to him the repercussions of his mistakes.

(*d*) A knowledge of the umpires' wireless net and the general layout of umpires.

(*e*) Assembling a full complement of umpires' equipment such as:—

(i) A log for the maintenance of accurate records.
(ii) White flag.
(iii) Arm band.
(iv) Loud hailer.
(v) Thunderflashes and smoke generators for simulating fire.
(vi) Wireless set for control.

757. At the end of the exercise, the umpire will be required to attend an umpires conference and also to report on any damage to property.

Principles

758. The principles of good umpiring are:—

(*a*) Understanding the exercise fully.

(*b*) Maintaining good relations with those being exercised.

(*c*) Maintaining realism.

Understanding

759. It is the duty of each umpire to keep himself fully briefed all the time. If he does not know what is happening on the flanks and with neighbouring units, he must find out. He must ensure:—

(*a*) That he follows the situation and anticipates future moves by getting information from the umpire net. In return, of course, he must be prompt to give information.

(*b*) That he listens to all orders and, if he has time, to the wireless net of the troops being exercised.

(*c*) That he is not bluffed but checks up for himself, particularly as regards supporting fire.

Good relations

760. An exercise cannot succeed unless mutual trust is established between commanders and umpires. Umpires must therefore:—

(*a*) Be impartial.

(*b*) Ensure that troops understand the tactical situation and the reasons for decisions.

(*c*) Be firm and stick to their decisions.

(*d*) Not dictate and not criticize. The commanders and not the umpires are commanding; the time for criticism is at the end of the exercise. Junior ranks should not be detailed to criticize senior officers.

(*e*) Be tactful.

(*f*) Give credit for good work.

Realism

761. Much skill is needed to create and maintain realism. Umpires should:—

(*a*) Conform with the movement of troops. They must not betray impending actions or ruin surprise in so doing.

(*b*) Ensure that the opposition with which troops have to deal is in keeping with their strength.

(*c*) Give only such information as would actually be available in battle; for instance, only the effect and strike of enemy bullets should be given, the locating of the gun being left to the troops under fire. In exercises where there is no live firing, information on enemy locations must still be withheld until the troops have carried out such action as would have enabled them to get the information in practice. Examples:—

(i) Wrong—"You are under effective fire from an LMG sited in the top floor of that house or from a mortar in that chalk pit".

(ii) Right—"You can hear the sound of bullets cracking over your head. They seem to be getting the range as you have just had one man hit. The fire seems to be coming from the direction of your front". This last piece of information may be necessary if guns are not firing live. As the section sets about locating the enemy, the section commander can be given a little more information.

(*d*) Penalize carelessness and faulty tactics or training by awarding casualties.

(*e*) Stop unreal situations by using a white flag and a whistle. It is better to call a temporary halt than to allow a battle to develop into a farce. It is wrong to give a quick assessment and send the losing side away without first summing up the encounter. It is right to stop the battle, call the commanders together, discuss the incident giving reasons for decisions and, where possible, a few words of encouragement. The losers should then be put out of action for a certain time, left on the ground as casualties or ordered to move non-tactically to a certain point or handed over to the victors as prisoners, according to the scope of the exercise. The umpire must give clear instructions about the action to be taken by both sides as a result of the engagement.

(*f*) Frustrate all movement under aimed fire unless covered by fire. To bring out this important principle of infantry fighting, it may be necessary to have rigid control and to ban all such movement by placing white tapes in certain areas; this will only be appropriate on low level exercises when the lesson of Fire and Movement is paramount and then the significance of these tapes must be made clear before the exercise. Usually, the only means the umpire has of frustrating such movement is to describe the situation in stronger and stronger terms, awarding more and more casualties. Finally, if no attention is paid to him, the consequences of the action must be brought home to those concerned and the exercise must be stopped so that an inquest may be held.

(*g*) Watch for realistic fire control. Covering fire should not be accepted as effective unless the weapons are really pointing at the target and there is enough ammunition.

(*h*) Study fire effect before making decisions. This is the basis of accurate assessment and usually involves contacting the opposing umpire and finding out the enemy plans and dispositions.

(*j*) Use effects such as thunderflashes in a realistic way. They must make it clear whether such effects represent artillery, mortar fire or grenades and then troops must be made to act in an appropriate manner.

(*k*) Contact the enemy umpire before and after a battle. Unless both umpires appreciate the dispositions of both sides, accurate assessment of casualties will be difficult. It may also be necessary to call the two commanders together in order to question them on their plans.

(*l*) Take care how they pass information over the umpires net. Nothing is more disconcerting for troops than hearing accurate forecasts of their movements being passed over the air; it makes them lose confidence in their efforts to achieve surprise. Umpires should move out of earshot before sending such information.

(*m*) Carry a loud hailer which can be used to ensure that all troops in the area can be briefed simultaneously when necessary.

(*n*) Ensure that a realistic battle tempo is maintained. Time must be allowed for deployment, passing information and giving out orders at all levels.

(Security Classification) APPENDIX A

PATROL REPORT

(OMIT HEADING(S) NOT APPLICABLE)

....

DESTINATION OF PATROL DATE

TO: .....

MAPS: .....

A. SIZE AND COMPOSITION OF PATROL.

B. TASK.

C. TIME OF DEPARTURE.

D. TIME OF RETURN.

E. ROUTES (OUT AND BACK).

F. TERRAIN.

(Description of the terrain—dry, swampy, jungle, thickly wooded, high brush, rocky, deepness of ravines; condition of bridges as to type, size and strength, effect on armour and wheeled vehicles).

G. ENEMY.

(Strength, disposition, condition of defences, equipment, weapons, attitude, morale, exact location, movements and any shift in dispositions). Time activity was observed; co-ordinates where activity occurred.

H. ANY MAP CORRECTIONS.

J. MISCELLANEOUS INFORMATION.

K. RESULTS OF ENCOUNTERS WITH ENEMY.

(Enemy prisoners and dispositions; identifications; enemy casualties; captured documents and equipment).

L. CONDITION OF PATROL, INCLUDING DISPOSITION OF ANY DEAD OR WOUNDED.

CONCLUSIONS AND RECOMMENDATIONS

(including to what extent the mission was accomplished and recommendations as to patrol equipment and tactics)

.....

Signature, Grade/Rank and Organization/Unit of Patrol Leader.

M. ADDITIONAL REMARKS BY INTERROGATOR.

Signature, Grade/Rank and Organization/Unit or Interrogator Time.

O. DISTRIBUTION.

(Security Classification)

APPENDIX B

INFANTRY/TANK TARGET INDICATION

Definition

1. When tanks and infantry are in action in close co-operation, it often happens that a target such as an enemy machine gun post, which the tanks have not seen, checks the infantry they are supporting. The term "Infantry/Tank Target Indication" covers any method by which infantry can indicate such targets to tanks.

Aim and scope

2. The aim of any method of indication is to enable the tank commander and indirectly, the tank gunner to identify the target as soon as possible. In considering various methods, the situation envisaged is one in which a troop of tanks is in support of one rifle company. Infantry should then be able to see their supporting tanks and both should be able to see the battle area. Tanks and infantry may be moving together or on different axes. Any procedure adopted must be:—

(*a*) Applicable to both desert and cultivated country.

(*b*) Simple, accurate and quick.

Methods not to be used

3. It has been decided after trials and practical experience that the following methods will not be used:—

(*a*) Smoke bombs, because there is generally a lot of smoke on the battlefield already.

(*b*) Target grid procedure, because it takes too long and requires plotting equipment in the tank.

Procedure

4. There are three ways of indicating targets:—

(*a*) WS 88.

(*b*) Tank telephone.

(*c*) Personal contact.

WS 88 or tank telephone

5. It is best to use one of these once battle is joined. The fire order must be simple and clear.

Personal contact

6. This is the easiest method. The infantry commander can check that the tank is on the correct target by using the tank commander's blade vane sight forward of the tank commander's cupola. It may however not always be possible to climb onto a tank.

Simple drill

7. (*a*) Attract the tank commander's attention.
(*b*) Get the tank commander to look in the right direction.
(*c*) Give him the range.
(*d*) Describe the target.
(*e*) Give the tank commander an executive order.

Wireless procedure

8. If the WS 88 is used, the procedure will be as shown in the examples at the end of this appendix. If personal contact or tank telephone is used, the procedure will be as explained in the following paragraphs.

Attracting attention

9. The WS 88 may be used for either of the following purposes:—

(*a*) To offer the target, " Hullo 1 for 992. Target. Over ".
(*b*) To tell the tank commander that the infantry commander is coming to the tank for personal contact or to use the tank telephone.

Getting the tank to look in the right direction

10. There are three ways of doing this:—

(*a*) Reference points.
(*b*) Gun barrel of the tank itself.
(*c*) Shot for reference from tank or infantry weapons.

Reference point

11. Whenever possible, reference points should be pre-arranged. However, they can only be picked from a view of the actual ground and they must never be chosen from a map. In a rapid advance they must be changed at every bound. This need only take a moment. Reference points must be clear, unmistakeable and few in number.

12. Common sense must be used when directing a tank commander from a reference point to a target. The clock-face method should be used to give the direction of the target from the reference point. Where the target is a difficult one to describe, the eyes of the tank commander may be guided along some landmark such as a hedgerow.

Gun barrel

13. Where reference points are non-existent or there has been no time to arrange any, the gun barrel of the tank is used as a datum line from which approximate deflection can be given.

The terms " Quarter left ", " Half right ", etc, are used to get the deflection from the gun barrel datum line. It should always be possible for the infantry to establish this line. If they cannot see the barrel properly, the sight of the rear face of the turret will be enough to show which way it is pointing.

Shot for reference

14. An artificial reference point can be created by the burst of a shell or the point of impact of tracer fired from a machine gun. This may be done by a tank's main armament or machine gun or an infantry LMG firing tracer. This method should only be used when other methods are impracticable. It is the slowest method and therefore not suitable for quick fire support.

15. If an infantry weapon is being fired, the tank commander must be warned and given the rough direction in which to look to observe the burst.

16. If the infantry commander wants the tank to fire a shot or burst for reference, he must give both the general direction and approximate range.

Range

17. Once the tank commander is looking in the right direction, the range to the target will always be given before any detailed description of the target. It is essential that the distance should be accurately judged.

Target description

18. This must be imaginative and all landmarks should be used to lead the tank commander's eyes to the target. If a target is obvious, the description should be kept short.

Executive order

19. The infantry commander will always say how the target is to be dealt with. If it is a pinpoint target which does not move, the tank commander will try to destroy it. If it is an area target, the infantry require it to be neutralized. The infantry commander will therefore say " Destroy " or " Neutralize ".

20. Where a target is to be neutralized, the infantry commander should refer to the time factor and the action he is taking. In operations at platoon level, accurate timings are often not possible. He can, however, say something like " Neutralize and cease fire on my orders. Am attacking right flank ".

21. The order to cease fire should normally be given on the WS 88 since light or smoke signals may be missed or misunderstood. If these become necessary, they must be pre-arranged.

Correction of tank fire where the target is not identified

22. If the tank commander fails to identify the right target, the infantry commander must either give another description or use the first shot for reference. The tank commander will be looking where his first round(s) fell.

23. Corrections are given from the infantry commander's point of view as " Left " or " Right ", " Add " or " Drop " as he sees it on the ground. It is up to the tank commander to allow for variations of ground and apply the tank gun corrections.

24. The infantry will not attempt to retain control of the fire of the tank as if it were an artillery battery. Infantry should not feel that tanks will never pick up targets without their help. Tanks will often identify and engage targets before the infantry are aware of them at all. If tanks spot targets at the same time as infantry, they will engage them without a request for fire.

Examples

25. It is assumed throughout these examples that the tank call sign is 992 (Troop leader of No. 2 Troop) and the infantry call sign is One (No 7 Platoon).

Example 1—Reference points

26. *Infantry* " Hullo one for nine nine two. Target. Over ".
Tank " Nine nine two. OK. Over ".
Infantry " One. Lone tree. Go right. Four o'clock. Four hundred. Machine gun in hedgerow. Destroy. Over ".
Tank " Nine nine two. Wilco. Out ".

Example 2—Gun barrel

27. *Infantry* " Hullo one for nine nine two. Target. Over ".
Tank " Nine nine two. OK. Over ".
Infantry " One. Gun barrel. Go quarter right. Eight hundred. Three small bushes. Identify. Roger so far. Over ".

Note:—If the message is long or there is a chance of confusion, break up the message in this way. Make sure the tank commander is quite clear by using the word " Identify ". The same procedure can be used to point out new reference points quickly.

Tank " Nine nine two. Identified. Over ".
Infantry " One. From right bush go right seven o'clock. Machine gun in trench. Neutralize and cease fire on my orders. Over ".
Tank " Nine nine two. Wilco. Out ".

Example 3—Shot for reference (fired by tank)

28. *Infantry* " Hullo one for nine nine two. Target. Over ".
Tank " Nine nine two. OK. Over ".
Infantry " One. Gun barrel. Go half left. Six hundred. Fire shot for reference. Over ".
Tank " Nine nine two. Wilco. Wait out ".
Tank " Nine nine two. Firing now. Out ".

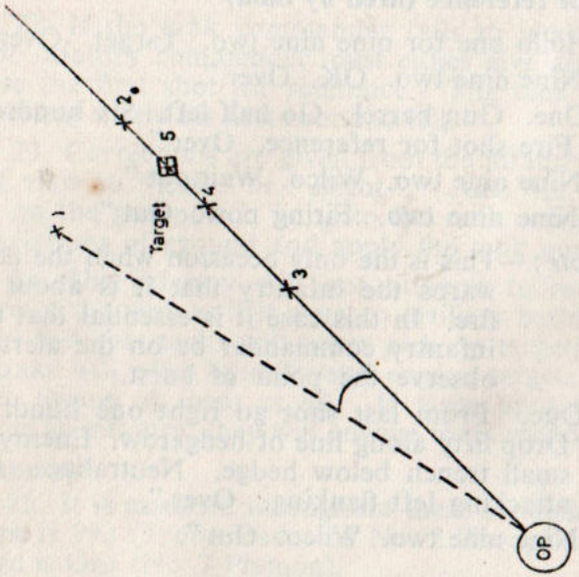
Note:—This is the only occasion when the tank warns the infantry that it is about to fire. In this case it is essential that the infantry commander be on the alert to observe the point of burst.

Infantry " One. From last shot go right one hundred. Drop fifty along line of hedgerow. Enemy in small trench below hedge. Neutralize. Am attacking left flanking. Over ".
Tank " Nine nine two. Wilco. Out ".

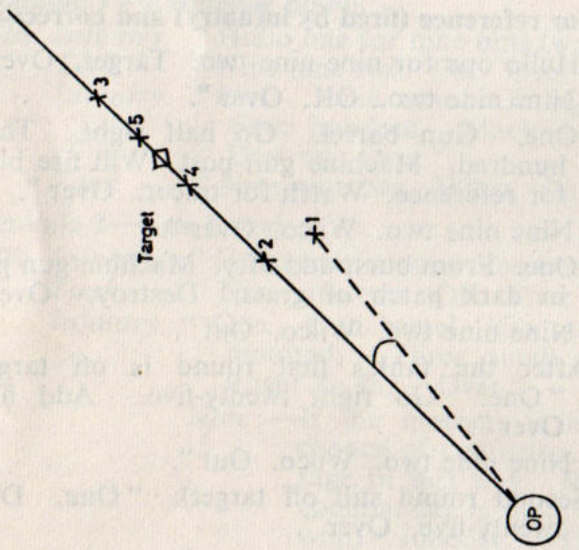
Example 4—Shot for reference (fired by infantry) and corrections

29. *Infantry* " Hullo one for nine nine two. Target. Over ".
Tank " Nine nine two. OK. Over ".
Infantry " One. Gun barrel. Go half right. Three hundred. Machine gun post. Will fire burst for reference. Watch for tracer. Over ".
Tank " Nine nine two. Wilco. Over ".
Infantry " One. From burst add fifty. Machine gun post in dark patch of grass. Destroy. Over ".
Tank " Nine nine two. Wilco. Out ".
Infantry (After the tank's first round is off target). " One. Go right twenty-five. Add fifty. Over ".
Tank " Nine nine two. Wilco. Out ".
Infantry (Second round still off target). " One. Drop twenty-five. Over ".
Tank " Nine nine two. Wilco. Out ".
Infantry " One. Target. Out ".

Note:—Only confirm in this way if it is thought necessary. It is normally undesirable to use up wireless time in this way except on a difficult target about which the tank commander has been hesitant.



Round	Observation	Correction
1	Left twelve degrees	"Go right two hundred"
2	Over	"Drop four hundred"
3	Short	"Add two hundred"
4	Short	"Add one hundred"
5	Target hit	"On target"



Round	Observation	Correction
1	Right six degrees	"Go left one hundred"
2	Short	"Add four hundred"
3	Over	"Drop two hundred"
4	Short	"Add one hundred"
5	Over	"Drop fifty. On target"

FIG 8.—Two examples of the process of ranging

PROCEDURE FOR ARTILLERY TARGET INDICATION

General

1. This appendix tells infantry officers how to indicate targets to, and direct the fire of, supporting artillery. The artillery OP officer is called "The OP officer" throughout, and the infantry officer who is asking for fire "The observer".

Communications

2. Artillery OPs, FOOs and battery commanders have infantry type wireless sets, which are usually netted on the battalion command net, but may occasionally have to be on company nets.

3. On an infantry net the artillery use the call sign 96. The field battery commander is 96A, and his two troop commanders 96B and 96C; if the commander of a medium troop is present, he is 96D.

Voice procedure

4. Use normal voice procedure, but:—

(*a*) When answering a transmission, always repeat its text in full.

(*b*) When transmitting a number, omit the word "Figures".

(*c*) If the recipient repeats any part of a transmission wrongly, say "Wrong", and the whole message, or the relevant part of it, again. In acknowledging such a correction, do not omit the word "Wrong". (*See* Example 3).

Indicating and engaging targets

5. To call for fire support, first warn the OP officer (and incidentally the whole net) by calling him and saying, "Target, target, target"; then tell him all he needs to know about the target, as briefly as possible; for example:—

(*a*) Where it is. The normal way is to give its grid reference in clear (*see* Example 1); if that is impossible, other ways are:—

(i) By a correction from a reference point, which must be obvious and visible, or have been previously agreed, or be a previously recorded target (*see* Examples 2 and 3).

(ii) By asking for a salvo in a given area, indicated by reference to a map square, the axis of advance, etc, and correcting from that (*see*

Example 4). This method is useful in ill mapped or featureless country.

(iii) By firing tracer or smoke at it.

(*b*) The OT bearing:—

(i) It is the GRID bearing from the observer TO THE TARGET, not to any reference point used to indicate the target; give it in the form "Oscar tango six zero degrees".

(ii) If it is impossible to convert a magnetic bearing to a grid bearing, tell the OP officer so by giving it in the form "Oscar tango seven eight degrees magnetic".

(iii) Give it every time a target is indicated, as no record of it is kept at the gun position.

(*c*) What it is—describe the target tactically—four machine guns for instance—so that the gunners can judge what weight of fire it merits, and physically—green bushes in a brown field, for instance—to help the OP officer to identify it.

(*d*) What he is to do to it; neutralize or smoke, for example.

(*e*) When and for how long: the most usual ways to describe this are:—

(i) "Neutralize now". The OP officer fires for effect as soon as he can.

(ii) "Neutralize at .... hrs for .... minutes".

(iii) "Neutralize for .... minutes. Report when ready to engage". The OP officer reports ready when he has finished ranging and is ready to fire for effect.

6. With this information the OP officer can usually engage the target. If he cannot, the observer must carry out the shoot himself, passing his orders to the OP officer, who edits them and passes them back to the guns.

Corrections (see Figure 8)

7. Ranging consists of:—

(*a*) Correcting fire onto the line OT by ordering "Go left" or "Go right" so many yards, without trying to "bracket" (*see* para 8).

(*b*) "Bracketing" along the line OT, by ordering "Add" and "Drop" so many yards (*see* para 9).

(*c*) Telling the OP officer when to fire for effect, by saying "On target".

Line corrections

8. To judge how big a correction to order, measure with the graticules of a binocular, or with the hand, by how many degrees the round missed the line OT; judge, or measure from the map, the distance OT, and apply the rule "At 1,000 yards one degree subtends 17 yards", and order a correction to the nearest 25 yards. For example, if the distance OT is 2,000 yards, and the round falls six degrees to the right of the line OT, order "Go left two hundred ($6 \times 2 \times 17 = 204$).

Bracketing

9. (*a*) Once rounds are falling on or near the line OT, it is easy to see whether they are beyond the target ("Over") or "Short".

(*b*) It is difficult to judge how far "Over" or "Short" a round falls. If the first round is short, correct bodly enough to make sure that the next is "Over", and vice versa; at this stage always correct by 400 or 800 (or exceptionally 200 or 1,600) yards. That produces two shots, one "Over" and one "Short" 400 or 800 (or 200 or 1,600) yards apart, which is known as a long bracket.

(*c*) If the order that produced the long bracket was "Add 800" next order "Drop 400". If the next round falls "Short" order "Add 200", and so on, progressively halving the bracket until one round falls "Over" and one "Short" with only 100 yards between them (a short bracket). Then order "Add (or drop) 50. On target".

(*d*) If, after an initial "Drop (or add) ...." correction, the next round falls "Over" (or "Short"), order "Drop (or add) 400 or 800 (or exceptionally 200 or 1,600)" again; make sure that this second correction is big enough to bring the next round "Short" (or "Over").

(*e*) If a round hits the target during ranging, order "On target", at once.

10. In ideal conditions an experienced officer may sometimes be able to order a double correction, like "Go right two hundred, add four hundred".

Procedure during the shoot

11. When an observer has indicated a target to him and asked for fire, the OP officer repeats the whole message, says "Wait out", and tries to identify the target. If he succeeds, he reports "Target identified" and starts to range on it; if he fails, he

reports " Target not identified send corrections ". The procedure, which is the same when the observer asks for a salvo (*see* para 5 (*a*) (ii)) is:—

(*a*) The artillery fires a four-gun salvo with the guns concentrated on the point indicated; but if ammunition is short only one gun may fire; when the guns fire, the OP officer reports " Shot " to the observer.

(*b*) The observer watches the salvo and starts giving corrections (*see* paras 7-10). The OP officer also tries to observe the salvos throughout and identify the target from them, reports " Target identified " as soon as he can, and then takes over ranging himself.

(*c*) If the observer cannot see the fall of a salvo, and feels unable to give a correction to bring the next one into view, he reports " Unobserved ". The OP officer then decides whether to fire again at the same place, fire somewhere else where the observer is more likely to be able to see, or fire smoke. The observer can also ask for smoke if he thinks it would help.

12. When the OP officer brings down fire for effect, the observer must report that it is effective, or order a correction. He may ask for the target to be recorded for future use; if he does, the OP officer tells him the target number (*see* Example 3).

13. Either during ranging or during fire for effect, to get the artillery to fire again without correction the number of rounds that they have just fired, order " Repeat ".

Examples

14. *Example* 1.—The simplest case, here the OP officer identifies the target at once:—

Serial	Observer (OC B Company)	OP Officer	Remarks
1	"Hullo two for nine six bravo. Target, target, target. Over"		
2		"Nine six bravo. Target, target, target. Over"	

Serial	Observer (OC B Company)	OP Officer	Remarks
3	"Two. Grid reference two four nine one five three. Oscar tango five zero degrees Two machine guns in ditch at cross roads. Neutralize for three minutes now Over"		Where it is OT bearing What it is What to do to it, when, and for how long
4		"Nine six bravo. Grid reference two four nine one five three. Oscar tango five zero degrees. Two machine guns in ditch at cross roads. Neutralize for three minutes now. Wait out"	
5		"Hullo nine six bravo for two. Target identified. Over"	
6	"Two. Target Identified. Out"		OP officer ranges and fires for effect when ready

15. *Example* 2.—The OP officer cannot identify the target, and asks for corrections:

Serial	Observer (OC A Company)	OP Officer	Remarks
1	"Hullo one for nine six bravo. Target, target, target. Over"		
2		"Nine six bravo. Target, target, target. Over"	

Serial	Observer (OC A Company)	OP Officer	Remarks
3	"One. Reference point red house. Oscar tango three one degrees. Go right two hundred. Drop three hundred. Infantry platoon in copse. Neutralize for four minutes now. Over"		Previously agreed reference point
4		Nine six bravo. Reference point red house. Oscar tango three one degrees. Go right two hundred. Drop three hundred. Infantry platoon in copse. Neutralize for four minutes now. Wait out"	
5		"Hullo nine six bravo for one. Target not identified. Send corrections. Over"	
6	"One. Target not identified send corrections. Out"		OP officer orders guns to fire a salvo
7		"Hullo nine six bravo for one. Shot. Over"	As the guns fire
8	"One. Shot. Out"		
9	"Hullo one for nine six bravo. Drop four hundred. Over"		
10		"Nine six bravo. Drop four hundred. Out"	OP officer identifies target from this correction
11		"Hullo nine six bravo for one. Target identified. Over"	
12	"One. Target identified. Out"		OP officer continues shoot

16. *Example* 3.—The OP officer cannot identify the target, and the observer completes the shoot:

Serial	Observer (OC D Company)	OP Officer	Remarks
1	"Hullo four for nine six charlie. Target, target, target. Over"		
2		"Nine six charlie. Target, target, target. Over"	
3	"Four. Reference target Mike three two one zero. Oscar tango one one degrees. Go left two hundred. Four mortars in quarry. Neutralize for three minutes at ten hundred hours. Over"		
4		"Nine six charlie. Reference target Mike three two one zero. Oscar tango two one degrees. Go left two hundred. Four mortars in quarry. Neutralize for three minutes at ten hundred hours. Wait out"	OT is wrong
5	"Hullo four for nine six charlie. Wrong. Oscar tango ONE one degrees. Over"		Stressing corrected word
6		"Nine six charlie. Wrong. Oscar tango ONE one degrees. Out"	
7		"Hullo nine six charlie for four. Target not identified. Send corrections. Over"	

Serial	Observer (OC D Company)	OP Officer	Remarks
8	"Four. Target not identified. Send corrections. Out"		
9		"Hullo nine six charlie for four. Shot. Over"	
10	"Four. Shot. Out"		
11	"Hullo four for nine six charlie. Go left one hundred. Over"		
12		"Nine six charlie. Go left one hundred. Out"	
13		"Hullo nine six charlie for four. Shot. Over"	
14	"Four. Shot. Out"		
15	"Hullo four for nine six charlie. Drop two hundred. Over"		
16		"Nine six charlie. Drop two hundred. Out"	
17		"Hullo nine six charlie for four. Shot. Over"	
18	"Four. Shot. Out"		
19	"Hullo four for nine six charlie. On target. Over"		
20		"Nine six charlie. On target. Out"	
21		"Hullo nine six charlie for four. Shot. Over"	When fire for effect opened at 1000 hours.
22	"Four. Shot. Out"		

Serial	Observer (OC C Company)	OP Officer	Remarks
23	"Hullo four for nine six charlie. Fire effective. Record as target. Over"		
24		"Nine six charlie. Fire effective. Record as target. Out"	OP officer tells observer target number when it has been recorded

17. *Example* 4.—The observer asks for a salvo to use as a reference point.

Serial	Observer (OC C Company)	OP Officer	Remarks
1	"Hullo three for nine six bravo. Target, target, target. Over"		
2		"Nine six bravo. Target, target, target. Over"	
3	"Three. Fire salvo for reference point in square four two five six. Oscar tango five five degrees. Roger so far. Over"		Communications difficult, so the observer splits his transmission into two parts
4		"Nine six bravo. Fire salvo for reference point in square four two five six. Oscar tango five five degrees. Over"	
5	"Three. Two machine guns in light scrub on hillside near track. Neutralize for three minutes at one four hundred hours. Over"		

Serial	Observer (OC C Company)	OP Officer	Remarks
6		"Nine six bravo. Two machine guns in light scrub on hillside near track. Neutralize for three minutes at one four hundred hours. Out"	
7		"Hullo nine six bravo for three. Shot. Over"	As the guns fire a salvo into square 4256
8	"Three. Shot. Out"		The observer sends corrections until the OP officer identifies the target and takes over the shoot himself.

APPENDIX D

SHELREP OR MORTREP PROFORMA

	1	2	3	4	5	6	7	8
A. From (Unit)								
B. Map ref of observer								
C. Grid or magnetic (state which) bearing of flash, sound or groove of shell (state which)								
D. Time from								
E. Time to								
F. Map ref of area shelled or mortared								
G. Number and nature of guns or mortars								
H. Nature of fire (registration, bombardment, harassing, etc)								
I. Number and type of bombs, shells, etc								
J. Time of flash to bang								

APPENDIX E

LAYOUT OF WRITTEN EXERCISE

PART I EXERCISE.....

AIM, LESSONS, GENERAL NARRATIVE, OPENING SITUATION

Ref maps/air photos

1. AIM.
2. LESSONS.
3. GENERAL NARRATIVE (general background).
4. OPENING SITUATION (situation affecting the platoon).

PART II

EXERCISE.....

EXERCISE INSTRUCTIONS

Ref maps

1. Troops taking part.
2. Date and time, including place of parade.
3. Duration of exercise.
4. Time and place for discussion and summing up after exercise.
5. Stores required:—
   (*a*) Ammunition.
   (*b*) Other equipment.
   (*c*) Wireless sets.
   (*d*) Rations and feeding arrangements.
   (*e*) Transport including time and place.
6. Detail for returning stores.
7. SAFETY instructions including medical arrangements.
8. Distribution to include those affected but not taking part, for example, QM, MTO, MO etc.

PART III

EXERCISE.....

INSTRUCTIONS TO ENEMY, UMPIRES AND FORECAST OF EVENTS

Ref maps/air photos

(*Note*:—NOT issued to troops being exercised)

1. Troops acting as enemy and umpires (including weapons, equipment and dress).
2. Time and place of parade for briefing, recce and exercise.
3. Forecast of events:—
   (*a*) Enemy positions and action of enemy.
   (*b*) Expected action of platoon being exercised.
   (*c*) Situations which umpires must describe to platoon and points to note.
4. Diagram or marked map or air photo showing enemy positions to be attacked.
5. Time and place of umpires conference.
6. Time and place for discussion and summing up after exercise.

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